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### The Cherry Collection of Deg Hit'an (Ingalik) Material Culture

James W. VanStone

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### The Cherry Collection of Deg Hit'an (Ingalik) Material Culture

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# The Cherry Collection of Deg Hit'an (Ingalik) Material Culture

James W. VanStone

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## Abstract

The collections of the Field Museum of Natural History contain 128 ethnographic objects collected among the Deg Hit'an (Ingalik) Indians at Anvik, Alaska, in 1890–1892. Marcus O. Cherry assembled the collection for the World's Columbian Exposition in 1893. The artifacts in this collection are described and illustrated. For comparative purposes, information is included from a previous study of Deg Hit'an material culture by Cornelius Osgood (1940) and from other relevant sources.

## I. Introduction

### Ingalik Territory and Environment

The Deg Hit'an (Ingalik) Indians of west-central Alaska are the westernmost Athapaskan-speaking people. At the time of their first direct contact with Europeans in the late 18th and early 19th centuries, their homeland included a section of the lower middle Yukon River, extending from the mouth of Shageluk Slough on the north to the confluence of the Yukon and Innoko rivers on the south. Also included were the drainage systems of the Anvik River, a western tributary of the Yukon in the region, and the Innoko River, the only important Yukon tributary entering on the left or east bank. The Deg Hit'an also inhabited a small portion of the Kuskokwim River drainage (Fig. 1).

The name Ingalik is Yupik Eskimo and means "having many nits." It was bestowed on the people in question by their Yupik-speaking neighbors on the lower Yukon because the Indians were not known to cut their hair (Osgood, 1940, p. 31; Zagoskin, 1967, p. 105). The Ingalik call themselves Deg Hit'an, meaning "people from here" (Godard, 1981, p. 614).

At the time of first European contact, most of

the Deg Hit'an lived in the drainages of the Yukon and Innoko rivers, usually referred to as the Anvik-Shageluk area, the names of their two largest villages. The Deg Hit'an inhabit this same area today. The most accurate census data for the Anvik-Shageluk area were gathered by John Wight Chapman, a pioneer Episcopalian missionary at Anvik. He enumerated 652 people in the area in 1898, not long after the collection described in this study was made (Chapman, 1898, p. 167). The Yukon Deg Hit'an villages apparently lost fully two thirds of their inhabitants as the result of a smallpox epidemic in 1838–1839 (VanStone, 1979b, pp. 58–61).

The Anvik-Shageluk area, a cultural unit, can be equated with the Innoko Lowlands, a geographic unit characterized primarily by low, flat country consisting of river flood plains surrounded by low, rolling hills (Wahrhaftig, 1965, p. 30). There are no high mountains or large lakes, but rather numerous navigable rivers that have played a dominant role in the culture of the native inhabitants. These rivers have provided a considerable proportion of the food and have also served as lines of communication between the villages built along their banks. They also provided access to the interior of central Alaska, first for Russian explorers

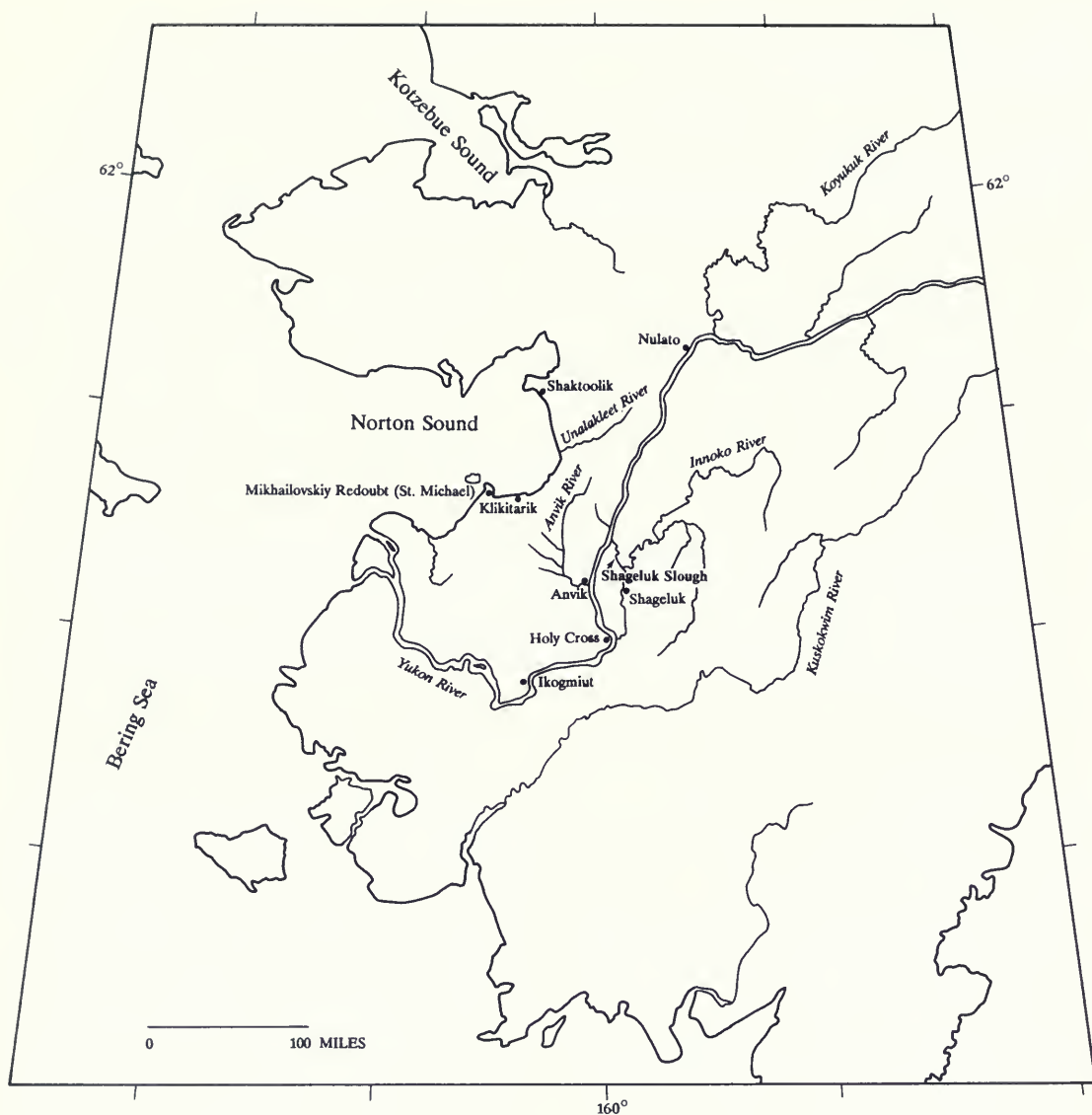


FIG. 1. Map of west-central Alaska.

and traders in the 1830s and 1840s and later for their American counterparts as well as the gold seekers of the late 19th and early 20th centuries.

The climate of the Innoko Lowlands varies considerably, being very cold in the higher country, while in the lowland area it is as warm as anywhere in interior Alaska. There is considerable precipitation, and summer temperatures in the 80s are not uncommon. The Yukon River usually breaks up sometime during the second half of May and is frozen over by the last week in October or the first week in November. The country as a whole

is well wooded, and in summer there are many varieties of edible berries on the hillsides. The most common species of trees are spruce and birch, and there are extensive stands of willows and cottonwoods along the banks of rivers and streams. Birch was formerly important to the native inhabitants; its bark was used for covering boats, for the roofs of houses and other shelters, and for dishes and storage vessels. In the late 19th and early 20th centuries, birch trees were cut extensively as cordwood for river steamboats.

Animal life in the Innoko Lowlands is typical

of the interior of Alaska, although the variety and abundance of large game and fur-bearing animals have varied considerably over the past 150 years. Habitat changes have been largely responsible for fluctuating wildlife populations, although excessive trapping and a changing economic environment have also been important influences (VanStone, 1976).

The larger land animals native to the region are moose (*Alces alces*), caribou (*Rangifer tarandus*), black bear (*Ursus americanus*), and brown bear (*Ursus arctos*), but only moose are plentiful today. The most common smaller animals are beaver (*Castor canadensis*), mink (*Mustela vison*), lynx (*Felidae lynx*), fox (*Vulpus* sp.), river otter (*Lutra canadensis*), muskrat (*Ondata zibethicus*), marten (*Martes americana*), and weasel (*Mustela erminea*). Three of the five species of Pacific salmon enter the Yukon basin in sufficient numbers to constitute distinct runs. There are numerous species of whitefish (*Coregonus* sp.), and pike (*Esox lucius*), burbot (*Lota lota*), and blackfish (*Dallia pectoralis*) are common in shallow ponds and lakes. Grayling (*Thymallus arcticus*) and salmon trout (*Salvelinus* sp.) are found in the clear streams at higher elevations. Lamprey eels (*Lampetra japonica*) make a massive migration up the Yukon each winter. The entire Innoko Lowlands is a nesting ground for many varieties of migratory birds, especially ducks and geese.

### Subsistence

The Deg Hit'an inhabitants of the lower-middle Yukon taiga environment in the 19th century practiced all three of the basic gathering activities—hunting, fishing, and collecting. Fishing, however, was more important than either hunting or collecting, although both hunting and fishing had significant places in the yearly cycle of subsistence activities. Hunting supplemented the primary food supply of fish and provided skins for clothing. Plant products, primarily berries, were, at certain times of the year, an important supplement to the meat and fish diet. Although many different fish were present in the Deg Hit'an environment, salmon (*Oncorhynchus* sp.) were the most important and predictable food item. The following account of the Deg Hit'an traditional seasonal cycle of subsistence activities is derived primarily from Osgood (1940).

**SPRING**—Each subsistence year for the Deg Hit'an ended with the coming of spring. As early

as the end of February, small hunting parties left the winter villages to hunt caribou and other large game animals in the higher country to the east and west of the Yukon. Caribou were usually driven into surrounds and caught in snares, but sometimes they were stalked by individual hunters. Black and brown bears were hunted with bone-pointed lances as they came out of hibernation in late spring.

Beaver and muskrat were trapped in March and April. These and other furbearers could also be shot with bow and arrow when they were swimming. Migratory birds arrived with the first appearance of open water in small lakes and ponds. Spring fishing was an important activity in the vicinity of the river villages as soon as the ice began to recede. Gill nets were set for pike and whitefish in the sloughs of the Yukon as soon as they were open.

Late spring was the time for trading expeditions in the early contact period. Yupiit and some Iñupiat from Norton Sound came to the Yukon, and the Deg Hit'an traveled to the coast by way of the Anvik River. Late spring, before the salmon began to run, was an ideal time for these trips since a supply of coastal products was greatly needed. Sea mammal hides in particular were useful in spring for the construction of salmon nets and caribou snares.

**SUMMER**—The Indians moved to their summer fish camps as soon as the river was clear of ice, and the first king salmon, the most important food fish for the Deg Hit'an, arrived shortly thereafter. King or chinook salmon (*Oncorhynchus tshawytsch*) were taken most effectively in large basket traps, but could also be taken with dip nets. By the middle of June, dog salmon were running at Anvik and were taken with gill nets and wicker basket traps. Dog or chum salmon (*Oncorhynchus keta*) and silver or coho salmon (*Oncorhynchus kisutch*) furnished the largest amount of dried fish, and chum salmon in particular served as the staple dog food. Although fishing was the most important subsistence activity during the summer months, ducks and geese remained plentiful, and ripening salmon berries, blueberries, and cranberries were gathered in the late summer and early fall.

**FALL**—Fishing for silver salmon frequently continued into September, and trips to the coast with dried fish to trade were sometimes made in the early fall. Shortly before the close of navigation on the rivers, usually during early October, the Indians returned to their winter villages and began preparing for late fall and early winter hunting and



trapping. As soon as the rivers and sloughs were completely frozen over, fish traps were set in the channels, primarily for whitefish. Toward the end of November, the annual run of lampreys occurs in the Yukon River. Lampreys were hooked or netted through holes in the ice. The eels were eaten raw, and their oil was used for light and cooking.

Hunting was the most important fall activity. By early November, the country was well covered with snow, and the Deg Hit'an hunters started for the high country to hunt caribou, moose, and other large game. Caribou were especially plentiful in fall. Moose were hunted by the Deg Hit'an on snowshoes, preferably when the snow was deep or when a hard crust caused the animals' hooves to break through with each step. By the end of November, the hunters had returned from the high country with loads of fresh and frozen meat. The fall hunt was also the time when the trapping of small fur-bearing animals began. Traps were set out for fox, lynx, otter, beaver, marten, and mink, an activity that was increasingly important after the arrival of Europeans.

WINTER—Trapping continued into the winter months at least until the end of December. By that time the fall hunters and trappers were back in their villages; extensive cold and short days made both activities impossible. The midwinter days of December and January were the time of feasting and ceremonies involving all the villages of the Anvik-Shageluk area as well as some from neighboring areas. The Deg Hit'an, however, could not afford to withdraw entirely from the pursuit of subsistence activities. Snowshoe trips were made even on the shortest, coldest days to check snares set for ptarmigan (*Lagopus lagopus*) and hares (*Lepus americanus*). Small game was always important to the Deg Hit'an, as it often provided virtually the only food available when supplies of dried fish were running low. Fishing also continued throughout the winter, with traps being set in favorable locations along the main rivers and smaller streams for whitefish and pike. With the end of February and noticeably lengthening days, the seasonal cycle of the Anvik-Shageluk Deg Hit'an was ready to begin again.

## History of Contact

Russian explorers may have reached the Yukon River overland from Cook Inlet as early as the 1790s (Fedorova, 1973a, p. 6) or from Iliamna Lake in 1818 (Fedorova, 1973b, pp. 64–68), but

not until 1833, when the Russian-American Company established Mikhailovskiy Redoubt near the mouth of the Yukon, were they able to penetrate the interior of Alaska via its major river. Andre Glazunov, a creole employee of the company, ascended one of the streams flowing into Norton Sound east of Mikhailovskiy Redoubt, crossed over to the upper Anvik River, and descended it to the Deg Hit'an village of Anvik at the mouth. After distributing trade goods and exhorting the Indians to bring their furs to Mikhailovskiy Redoubt, Glazunov proceeded down the Yukon and crossed the divide to explore a portion of the middle Kuskokwim River (VanStone, 1959). Glazunov's success led to further exploration of the Yukon and the establishment of trading posts at Ikogmiut in 1836 and Nulato in 1838 (Chernenko, 1967, p. 10; Zagoskin, 1967, p. 298).

The most important Russian exploration of the Yukon was that of Lavrentiy A. Zagoskin for the Russian-American Company from 1842 to 1844. In December 1842, Zagoskin's party left Mikhailovskiy Redoubt and reached the Yukon by way of the Unalakleet River. During the winter of 1843, he explored the lower Koyukuk River, searching for a short route to Kotzebue Sound. In the summer the party explored the Yukon above the mouth of the Koyukuk and then headed downriver to Ikogmiut, which became Zagoskin's headquarters for the winter of 1843–1844. Thus far, he had explored and described more than 500 miles of the Yukon River.

During the winter and early spring of 1844, Zagoskin's party explored the Innoko River, traveled to the Kuskokwim twice, and returned to Ikogmiut in early June. The party then descended the Yukon to its mouth, making its way along the coast to Mikhailovskiy Redoubt later in the same month, having been away from the post for more than a year and a half. Zagoskin's report, first published in 1847–1848 (Zagoskin, 1967), is the primary source of information on the history, geography, and ethnography of west-central Alaska during the Russian period.

When the United States purchased Alaska, in 1867, American explorers were already in the newly acquired territory. Members of the Western Union Telegraph Expedition were involved in an elaborate undertaking to survey a route for a telegraph line that would cross the Bering Sea to Siberia and thus connect America with Europe. However, various publications relating to the work of the expedition included little new information on the inhabitants of the Anvik-Shageluk area. In

fact, much of the exploration of interior Alaska by both Russians and Americans between 1845 and 1880 was superficial, especially when compared with Zagoskin's accomplishments.

The most ambitious explorations carried out during the early American period were undertaken by Edward William Nelson, an observer for the Signal Service of the United States Army in Alaska. In 1877, Nelson was stationed at St. Michael, as Mikhailovskiy Redoubt was known during the American period, and directed to obtain data on geography, ethnology, and zoology, in addition to collecting weather observations, which was his primary duty. Nelson traveled extensively and assembled the superb collection of Eskimo ethnographic material now in the United States National Museum (1983). His last journey, during the winter of 1880–1881, was to the country of the Anvik-Shageluk Deg Hit'an. He explored both the Anvik and the Innoko rivers to their upper reaches. Although lacking specific geographic information, Nelson's account of his journey (VanStone, ed., 1978) is rich in ethnographic detail and is a basic source for our understanding of Deg Hit'an subsistence and resource utilization in the late 19th century.

Long before the arrival of the Russians, the Deg Hit'an were trading furs to Eskimos of Norton and Kotzebue sounds in exchange for coastal products and trade goods, the latter coming from trading posts on the Kolyma River in eastern Siberia by way of the Chukchi. Although the early Russian traders in the country of the Deg Hit'an were few in number and widely dispersed, the Indians rapidly became dependent on the European commodities which they obtained at Russian-American Company posts and in trade with coastal Eskimos.

During the early American period, the Deg Hit'an benefited from competition between the Alaska Commercial Company (successor to the Russian-American Company) and other firms. Prices paid for furs were higher than during the Russian period, and for the first time trapping was almost certainly pursued to the detriment of hunting for large game animals during the fall and winter months. As a result, the quantity of meat available was greatly reduced, and there was a corresponding increase in dependence on fish and on supplies obtained from traders. By 1883, when the Alaska Commercial Company gained a monopoly, fur prices had fallen and the Deg Hit'an were dependent on American commodities. The trading post was no longer simply a source of exotic goods

but a necessity for survival (VanStone, 1976, pp. 200–201; 1979b, chs. III–V).

Russian explorers and traders in southwest Alaska were closely followed by missionaries of the Russian Orthodox Church. A mission was established at Ikogmiut in 1844 and soon experienced success in securing converts among the Anvik-Shageluk Deg Hit'an. Although many Indians received baptism, the inability of the priests at Ikogmiut to make more than very infrequent visits to the Yukon and Innoko river villages meant that the new converts received virtually no instruction in the finer points of the Christian belief system or the responsibilities of a Christian life.

Isolated by the departure of the Russian-American Company in 1867, the Orthodox Church was poorly equipped to withstand the determined intrusion of the Episcopalians and Roman Catholics 20 years later. The Episcopalians established their mission at Anvik in 1880, and the Roman Catholics established a mission at Holy Cross opposite the mouth of the Innoko River in the same year. Both missions soon opened boarding schools, which enjoyed some success. The school run by the Roman Catholics, which actively solicited students from villages up and down the river, was especially successful. The first Episcopalian missionary at Anvik, John W. Chapman, served the church in the village for 42 years. It was an early employee of the Episcopal mission, Marcus O. Cherry, who made the collection described in this study.

### Previous Anthropological Research

Although the Anvik-Shageluk area has never been the focus of long-term professional anthropological research, it has been the location of some of the most intensive ethnographic studies carried out anywhere in the Subarctic. Most of the published research on the area, both ethnographic and archaeological, is based on fieldwork carried out in the 1930s and earlier.

In the summer of 1926, Ales Hrdlicka of the Smithsonian Institution descended the Yukon River from Nenana to the coast (Hrdlicka, 1944). The primary purpose of his trip was to collect skeletal material for the United States National Museum, but he also interviewed local inhabitants along the river, located and described a large number of archaeological sites, including many in the Anvik-Shageluk area, and obtained some information on the contemporary Indians and their



settlements. Hrdlicka made a second trip in 1929, this time including the lower Innoko River. The ethnographic information in his report is superficial at best.

Of far greater significance than the work of Hrdlicka was the archaeological reconnaissance of the Tanana and Yukon valleys between Nenana and Holy Cross, which was carried out by Frederica DeLaguna in the summer of 1935. Her party investigated a large number of archaeological sites throughout the area, testing many of them. In her report (DeLaguna, 1947), DeLaguna attempted to locate and identify all the settlements visited by Russian and early American explorers on the Yukon and its major tributaries; this was one of the earliest efforts to integrate Alaskan archaeological, ethnographic, and historical data. Her study is a major contribution to cultural historical research.

The only intensive ethnographic research among the Anvik-Shageluk Deg Hit'an was undertaken by Cornelius Osgood, who worked at Anvik in the summers of 1934 and 1937. Osgood first published an exhaustive study of Deg Hit'an material culture in 1940, which continues to be a classic among studies of its kind and has been particularly useful in the preparation of this study. This important report was followed by equally thorough treatments of mental and social culture (Osgood, 1958, 1959). Together, Osgood's three studies constitute the most comprehensive account of any northern Athapaskan people.

In 1972 and 1974, I undertook two seasons of fieldwork in the Anvik-Shageluk area as an adjunct to extensive historical research on the area. The resulting reports are primarily studies in ethnohistory (VanStone, 1979a,b). Between 1982 and 1984, Wendy H. Arundale investigated historical settlement patterns on the Innoko River for the Doyon Corporation; she submitted a report to the corporation in 1993 (Arundale, 1993).

### Marcus O. Cherry's Collection

In 1891, Frederic Ward Putnam, Curator of the Peabody Museum of Archaeology and Ethnology at Harvard University, was appointed Chief of the Department of Ethnology and Archaeology for the World's Columbian Exposition, in Chicago. His task was to assemble a large anthropological collection for the World's Fair in 1893, and for this purpose field parties were sent to various parts of the world to collect ethnographic objects and other materials representing many different cultures. Also

solicited were Euro-Americans living among native peoples, usually traders and missionaries.

One such individual was Marcus O. Cherry, who came to Anvik in July 1889 to work for the Episcopal mission. Cherry, a layman, worked for the mission as a carpenter and general handyman. He also assisted in certain aspects of the educational work of the mission and traveled on the Yukon and Innoko rivers in connection with his duties. He left the mission's employ in the summer of 1892 (VanStone, 1979b, pp. 138, 156). It was while working for the mission that he made the collection described in this study for the World's Columbian Exposition. At the conclusion of the World's Fair, the scientific collections acquired with Exposition funds were turned over to the Field Columbian Museum as a nucleus to found the institution that was subsequently renamed the Field Museum of Natural History. The Cherry collection was accessioned by the Department of Anthropology at the newly established museum on October 31, 1893, as accession 62.

Several factors complicated study of the Cherry collection, perhaps the most significant of which was that Cherry almost certainly collected some artifacts at Yupik Eskimo locations adjacent to the Deg Hit'an village of Anvik. Because Yupik Eskimo and Deg Hit'an material culture assemblages are very similar (a fact that will be discussed in more detail in the Conclusions), identification of specific proveniences for items in the collection is impossible in most cases.

The Department of Anthropology's accession files contain two accession lists for the Cherry collection. The first list, containing the entire collection, records objects represented by 237 catalog numbers, but with no indications of proveniences. The second list records only objects collected "from the Yukon River, Alaska (In-ga-lik Indians)." For the purposes of this study, it has been assumed that this is a list of artifacts Cherry obtained at Anvik or in other Deg Hit'an villages on the Yukon or along the lower Innoko River which the collector visited in connection with his duties at the mission, and that it omits those items possibly collected elsewhere. It is the artifacts on this second list that are described in this report.

This list of artifacts presumably collected at Anvik or other Deg Hit'an villages is not without its own problems. It records a total of 225 artifacts, including 115 with catalog numbers and locatable storage locations, 18 with catalog numbers and no locations, and 92 with neither catalog numbers nor storage locations. It is obvious that nearly half the

items on this Deg Hit'an list were never cataloged and perhaps never even reached the newly established museum; a few that were cataloged have, at some point over the past 100 years, disappeared from the collection and are unaccounted for. Thus, 128 items were available for inclusion in this study and are listed in the Appendix.

## II. The Collection

Artifacts in the Cherry collection are described within the following use categories: land hunting equipment, fishing tackle, tools, household equipment, clothing, and miscellaneous (see Appendix for catalog numbers). The descriptions of the artifacts that follow should be read while examining the accompanying photographs and drawings. For comparisons, I have relied heavily on Osgood (1940), although other sources are, of course, cited when relevant. Osgood's descriptions are excellent and help to flesh out the Cherry collection, but his study contains few illustrations and there are no photographs.

### Land Hunting Equipment

Except for snares and deadfalls, land hunting equipment is reasonably well represented in the Cherry collection. At the time the collection was made, these devices had largely been replaced by steel traps.

The most significant objects in the Cherry collection associated with land hunting are contained in two bear hunter's outfits. The first of these, according to the collection's accession notes, was purchased from a hunter named Kezeuk when he was about to depart on a bear hunt in the spring of 1892. This outfit contains a bow, quiver, wrist protector, eight arrows, and a bear spear.

The self *bow* is 162 cm in length. The stave, painted with red-brown pigment, is flat along the back and slightly rounded on the front. The grip is somewhat narrower than the limbs. Paired V-shaped notches are cut near the end of each horn for attachment of the string, which consists of two twisted strands of caribou sinew (Figs. 3a, 5c). According to Osgood (1940, pp. 201–202), wood of the black birch was the preferred material for bows. The typical Northern Athapaskan bow with an attached wooden guard was unknown to Osgood's informants. The sinew-backed bow, typical

of the neighboring Yupik Eskimos, was sometimes used.

A *wrist protector*, worn to prevent the bowstring from striking the wrist, consists of a rectangular piece of antler, concave on one side to fit the curve of the wrist and rounded at the ends. The outer surface is crudely decorated with an incised pattern. A narrow strip of dehaired caribou skin passes through a hole on each side (Fig. 2c). Osgood's informants claimed that the use of a wrist protector was unknown to them (Osgood, 1940, p. 202).

A *flat quiver* is made of multiple pieces of salmon skin sewn together with sinew so that the scaled surface of the skin is exposed. The outer surface of the quiver is divided into five sections by four broad strips of salmon skin sewn so that the light-colored inner surface of the skin is exposed. Running down the center of these divisions are very narrow bands of red- and black-dyed sealskin sewn with black-dyed sinew. Strips of mink and squirrel fur are sewn along one side of the vertical bands, around the lower edge of the quiver, and around the opening. A separate piece of fish skin along the upper edge of the quiver is sewn around a round wooden stiffener. The carrying strap is of fish skin, the outer surface of which is ornamented in a manner similar to that on the decorated surface of the quiver itself (Fig. 2a).

According to Osgood (1940, p. 206), arrows were inserted point first into the quiver, which was worn under the left arm with the carrying strap extending across the right shoulder. Flat quivers similar to this one were used by most Athapaskan groups; elaborately decorated examples were particularly characteristic of the Dena'ina (*The Far North*, 1973, p. 90; Siebert, 1980, p. 54, Figs. 3–5; Osgood, 1937, p. 91, Pl. 8h).

The eight *arrows* contained in this quiver are notched at the proximal end to receive the bowstring. The shafts are of sprucewood flattened at the nocks and painted with red-brown pigment. Feathers for the three arrow vanes, and for all other arrows in the collection, are from either the tail or wings of the great horned owl (*Bubo virginianus*), split and attached to the shaft at either end with sinew. The vanes are trimmed in an arc, and the ends of the fletching are very close (about 5 mm) to the arrow nocks. The fletching on all these arrows is in very poor condition.

Seven arrows have antler heads, and the head is missing from one. Three arrows have single heads with multiple barbs along one side. On two of these, the tangs are inserted into holes in the shaft and lashed with sinew. The lashing of one, which



is reinforced with spruce root, extends through a line hole in the head just above the end of the shaft (Fig. 4b). The third has a wedge-shaped tang which fits into a slit in the distal end of the shaft (Fig. 4c).

Three arrows have a pair of heads with multiple barbs along one side. Originally these were hafted so that the barbed sides faced each other, but they are now badly warped. The tangs slope almost to a point and are inserted into grooves on either side of the shaft. The sinew lashing extends beyond the end of the shaft to include the proximal ends of the heads (Fig. 4a,d).

The seventh arrow has a faceted, blunt head with a bifurcated tang that fits over the distal end of the shaft and is lashed with sinew (Fig. 4e). Osgood (1940, pp. 203–206) described Deg Hit'an arrows in some detail. He noted that arrows with a single head or with paired heads with multiple barbs were for killing all kinds of small birds and animals. The arrow with a blunt head was for killing birds.

Although these arrows are included in a bear hunter's outfit, they were presumably used for subsidiary hunting during the bear hunt and not for bears themselves. The hunter's outfit includes a *lance* that was used for killing black or brown bears, and perhaps other large animals as well. This lance has a sprucewood shaft that is 120 cm long, 2.5 cm in diameter, and painted with red-brown pigment. At the distal end is a lashing lip and a broad slit for insertion of the antler blade. The blade is lashed in place with rawhide, the lashing extending down the shaft and looped around it in four places. The blade has a spatulate tang and is flat on one side and ridged on the other. The ridged side is ornamented with a series of incised, spurred lines, half of which are filled with black pigment (Fig. 6b). This lance shows no signs of use and may have been made for the collector. A somewhat similar lance with an antler blade is described by Osgood (1940, p. 200), who noted that it was used for caribou as well as bears, and as a weapon in war. He further noted that bears were usually speared as they emerged from hibernation in their dens. The weapon was thrust and not thrown.

The second bear hunter's outfit includes a bow, four arrows, and a lance. The self *bow*, 165.5 cm long, closely resembles the one previously described, except that it is rectangular in cross section and is unpainted; there is no narrowing at the grip. The end of each horn is cut to a diamond shape for attachment of the string, which consists of two twisted strands of caribou sinew (Figs. 3b, 5a).

Each of the four *arrows* associated with this bow has a different style of head. In most other respects they are identical to the arrows previously described. The first, which was used for birds or small animals, has a faceted, blunt head with a bifurcated tang that fits over the wedge-shaped distal end of the shaft (Fig. 7d). The second arrow has an antler head with a sharp shoulder and plain conical tang that is inserted into an opening in the distal end of the shaft and lashed with sinew. The head has a pair of barbs along one edge and a blade slit at the end fitted with a metal blade. The tang is inserted into a slit in the shaft and lashed with sinew. There are faint black bands edged with red, presumably owner's marks, in three places near the fletching (Fig. 7b). According to Osgood (1940, p. 205), this type of arrow was used for large game, such as caribou and moose.

The third arrow has a pair of antler heads similar to those described earlier. They are concave along one surface, barbed along one edge, and hafted so that the concave surfaces face each other. Their offset tangs are fitted into grooves in the shaft and lashed with spruce root (Fig. 7c).

The fourth arrow is not similar to any described by Osgood. It has a metal head with a long, thin tang that fits into a slot in the end of the shaft and is lashed with sinew. Inserted in the lashing are a pair of feather spines, the ends of which extend out to form barbs. This arrow has a pair of faint black bands edged with red, one just below the fletching and the other in the area between the vanes (Fig. 7e). According to Osgood (1940, p. 205), the Deg Hit'an did not use ownership marks. Presumably this type of arrow was used for large game or in warfare.

The *lance* associated with the second bear hunter's outfit has a spruce shaft, 108 cm long and 2.5 cm in diameter. The distal end is split to receive a roughly worked slate blade with sloping shoulders and a wide, oval tang. Spruce root lashing is wrapped around the shaft for about three quarters of its length. The shaft is painted with black pigment from the haft for a distance of 57 cm; the rest is painted red (Fig. 6c). Osgood (1940, p. 200) described and illustrated a similar lance, but it had an antler blade.

There are two self *bows* in the collection in addition to those previously described. The first, 133 cm long, is rectangular in cross section and has no noticeable narrowing at the grip. The horns are cut in the shape of triangles and notched to receive a string of two-strand caribou sinew. The sides of the limbs are painted red, and there are rectangles



of red pigment at intervals on the front (Figs. 3c, 5b). The other bow has been more carefully worked than the others and has a more pronounced curve. The limbs are oval in cross section and noticeably thickened at the grip. The horns are cut to a diamond shape; there is no string (Fig. 6a). This bow has been considerably darkened, perhaps by exposure to fire, as was characteristic of Chandalar Gwich'in bows (McKenna, 1965, p. 36).

The Cherry collection contains 11 arrows in addition to those already described. Four, which were used for hunting birds or small animals, have blunt antler heads with bifurcated tangs that fit over the wedge-shaped end of the shaft. The fletching on these arrows is in poor condition, but it is clear that the distal end of each vane was fitted into a small slit in the shaft. The other end was attached with sinew lashing. The shafts are painted with red pigment for the proximal half of their length. Feathers on one of these arrows are missing, but the others are fletched with two vanes rather than the three characteristic of previously described arrows (Fig. 7a,f).

Three arrows have single antler heads, barbed along one side, with a conical tang that fits into a hole in the distal end of the shaft which is lashed with sinew. On two, the lashing also passes through a narrow slit at the proximal end of the head. The shafts are painted with red pigment, and all three arrows are fletched with three vanes attached at either end with sinew (Fig. 8a-b).

Two arrows have single antler heads with pronounced barbs and slits at the distal ends that hold metal blades. On one arrow, the blade is riveted in place (Fig. 8e), while on the other it is lashed with sinew. This arrow has a faded black band in the center of the shaft (Fig. 8d). The fletching consists of three vanes.

Two arrows are quite different from those previously described. One has a bone socketpiece with a wedge-shaped tang. Presumably this arrow would have had a detachable dart-like point with a line that the hunter could control. The fletching, which is badly damaged, appears to have consisted of a single vane spiraled around the shaft. Just in front of the fletching are three widely separated bands of red pigment (Fig. 8c). This arrow may have been used for large fish.

The last arrow has a conical antler head that fits over the end of the shaft. There is a blade slit containing a metal blade riveted in place. On one side of the head a small antler barb has been inserted. The shaft widens at the distal end to receive the head. Fletching consists of the usual three vanes

attached with sinew. The shaft is painted at both ends with red pigment (Fig. 8f).

A roughly worked blade of brown chert with a convex base may be an unfinished or broken *lance blade*. A large flake has been removed from the distal end (Fig. 2d).

The collection contains a model of a *sinew spring trap*, possibly introduced in Alaska by the Russians (Bogoras, 1909, pp. 138-139), which is described in the catalog as having been used for squirrels. This type of trap, not mentioned by Osgood, was common among coastal Eskimos from the northern shore of Norton Sound to Kotzebue Sound. As described by Nelson (1983, pp. 122-123, Fig. 37), it used "the tension of string, twisted sinew cords . . . to throw a lever and brain the animal that springs it." Among Eskimos it was generally used to kill foxes and wolves (*Canis lupus*). The model consists of a cylinder of wood with crosspieces of the same material at either end for winding the sinew, in this case string. A wooden lever and trigger release an ivory bar with a small peg at one end. On a full-sized trap, a spike or nail would have been inserted into the end of this bar. When the bait was taken, the bar would have been released and the spike or nail driven into the head of the animal (Fig. 2b).

Two halves of a stone *bullet mold* are held together by a pair of wooden pegs. This mold has the capacity to make three lead balls of slightly varying diameters at the same time. When the two halves are joined, conical holes are formed to facilitate the pouring of lead (Fig. 2e). This mold is considerably darkened from use.

## Fishing Tackle

Although actual numbers are small, the basic equipment for taking fish is represented in the Cherry collection. Traps were set under the ice, but other artifacts associated with ice fishing are missing.

Three light *harpoons* are described in the catalog as having been used for king salmon, the largest and heaviest of the three species of Pacific salmon making spawning runs up the Yukon River and its tributaries each summer. Each harpoon has a sprucewood shaft, approximately 1.5 cm in diameter, and a fixed antler foreshaft, which is inserted into a slit at the distal end of the shaft and lashed with spruce root. The harpoon heads have closed sockets, single spurs, and round line holes from which extend rawhide lines. Two have blade

slits, in one at right angles to the line hole and in the other parallel to the line hole. Both have metal blades; in one the blade is held in place with a metal rivet and in the other it is secured with sinew lashing. One of these heads is decorated with incised lines filled with black pigment (Fig. 9a); the other is undecorated (Fig. 9c). The third harpoon head lacks a blade and is undecorated (Fig. 9b). Two of the harpoon shafts have identical bands of red pigment, a broad one at the proximal and distal ends and three narrow bands in between (Fig. 9a,c). In his discussion of Deg Hit'an fishing technology, Osgood (1940) makes no reference to salmon harpoons.

The collection contains a *model fish trap*, which is made of sprucewood sticks lashed with spruce root line. It consists of two pieces, a funnel inserted into the front of a long, tubular basket. A round door that covered the end is missing. Accompanying this trap are two sections of sprucewood fence, consisting of a series of long, parallel sticks overlaid with slightly larger perpendicular pieces and lashed with spruce root. The fence was set out alongside the trap to divert the fish into the basket (Fig. 10). According to the catalog, this type of trap was used to take salmon in summer and whitefish and burbot in winter. Osgood (1958, p. 255) noted that fish trap sticks must be split from green spruce because dry wood contains no oil and would not stand the strain to which a fish trap is subjected.

This type of fish trap most closely resembles the winter trap described and illustrated by Osgood (1940, pp. 227–230, Pl. 4), which was set under the ice and intended primarily for burbot but also for whitefish and blackfish. The front funnel piece of a full-sized winter trap was about 1 m square, and the basket was about 2.5 m long. When these traps were set under the ice, they were usually taken up once or twice a week and might contain from 20 to 200 pounds of fish (Chapman, 1904, pp. 262–263; VanStone, 1981b, p. 8, Fig. 5).

The Cherry collection contains three *gill nets* and the netting for a possible *dip net*, none of which are complete. The three gill nets are for taking salmon trout, and the dip net is for blackfish. It is not possible to determine the exact length of any of the gill nets.

The first salmon trout net is made of two-strand, twisted nettle (*Urtica dioica*) fibers and lacks selva-ge lines, floats, sinkers, and stretchers. It is approximately 23 m long and 3 m wide. The meshes are square and 5 cm on a side.

The second salmon trout net, made of two-

strand, twisted willow bark fibers, is the most complete of the four since it includes selva-ge lines, floats, and sinkers. The selva-ge lines, placed along the length of the net at the top and bottom, are of thicker fibers than the meshes. The length and width of the net are uncertain because of its brittle, snarled condition, but the square meshes are 5 cm on a side. Cottonwood net floats, about 15 cm long, are attached with spruce root directly to the selva-ge line across the top of the net. Some of the floats were carefully made and are triangular in cross section with beveled edges and a line hole at each end. Others were more crudely fashioned, with notches at the end instead of line holes. The antler sinkers, attached to the selva-ge line across the bottom, are of varying lengths and have line holes or notches at each end.

Another net of two-strand, twisted willow bark fibers is described in the catalog as a "drag net." It is approximately 2.5 m long and 76 cm wide, with square meshes 4 cm to a side; it lacks floats, sinkers, and selva-ge lines (Fig. 11). Osgood (1940, pp. 219–220) described a drag net made by boys to take small fish in shallow areas of rivers and streams. The net was crudely made, lacked attachments, and was used somewhat in the manner of a seine.

A small net of two-strand, twisted caribou sinew has square meshes, 2 cm on a side (Fig. 12h). It is described in the catalog as being used to take blackfish in winter. This may be the netting for a blackfish dip net similar to one described by Osgood (1940, pp. 218–219), which was used at holes in the ice of lakes in winter when these fish were abundant. The mesh size, however, is much smaller than would seem to be required for a blackfish net.

Twenty-two cottonwood bark *net floats* are strung on a length of rawhide. Carefully made, they are all triangular in cross section and have beveled edges and a line hole at either end. Two are broken. All the others have paired incised lines on the bottom at each end and in the center (Fig. 12a).

An ivory *net shuttle* is decorated on both sides with incised spurred lines and dots filled with black pigment. The center portion to receive the line is slightly concave on both sides (Fig. 12b).

## Tools

Primary tools are poorly represented in the Cherry collection, perhaps because they had largely been replaced by imported Western tools and



their traditional counterparts were not available to the collector.

There are two complete *adzes* with antler handles and stone blades. The first has a slate blade with a V-shaped working edge attached to the flat side of the antler-tine handle's distal end. It is lashed with rawhide through evenly spaced, rectangular holes in the handle. About three quarters of the blade's outer surface is covered with strips of tanned hide, which helps provide a more secure grip for the lashing. The proximal end of the handle is split to receive a wedge-shaped piece of wood, which is held in place with a wooden peg and spruce root lashing. There is a suspension hole in the extreme proximal end. The handle is decorated with incised lines and dots filled with black pigment (Fig. 13b).

The second adze has a short antler handle lashed with rawhide to a large, heavy blade of slightly metamorphosed sedimentary rock. There is a suspension hole at the proximal end. The blade is crudely chipped except for the finely ground V-shaped working edge (Fig. 13a). According to Osgood (1940, p. 99), an adze is held with the thumb extended along the handle and used with short, chopping motions.

A single, finely ground, slate *adze blade* is flattened along one surface and has a V-shaped working edge (Fig. 13c).

The collection contains a single *skin scraper* employed for the initial scraping of heavy skins and fish skins prior to a second scraping with a bone scraper. It has a wooden handle, which is recessed along one side at the distal end to receive a ground slate blade lashed in place with rawhide and strips of tanned skin. The working edge of the blade appears to have been chipped from use. The handle is painted with red pigment (Fig. 13d).

There are two ground slate *skin scraper blades*, which taper toward the proximal end for hafting and have polished convex working edges (Fig. 13e,g). Markings on one blade seem to indicate the use of a stone saw.

A slate blade with straight sides and a convex working edge is identified in the catalog as a *knife blade* for cutting skins (Fig. 13f). It resembles the blade of the woman's knife described by Osgood (1940, pp. 88–89), which was used for cutting fish and other heavy work, including the initial cutting of skins prior to fine skin work.

A pair of *birch bark removers* are made from split caribou femurs or humeri that have been worked to a point at one end and given a suspension hole at the other. These implements are con-

cave on one side (Fig. 13h–i). According to Osgood (1940, pp. 77–78), this implement was used for prying the bark away from a tree. The point of the tool is slipped along the area where the bark is being pulled away by hand.

The collection contains five *awls*, which resemble the man's awl described by Osgood (1940, pp. 64–65). Two have wooden handles and three have bone handles; all have bone points. Since each is distinctive, they will be described separately.

The first awl is the longest; its wooden handle is painted with red pigment, and it has a knob at the proximal end. The bone point is inserted into a slot at the distal end of the handle and secured with nettle fiber lashing (Fig. 12g). The wooden handle on the second awl widens to form a handhold and has a lashing knob at the distal end. The bone point is held in place with baleen lashing, one end of which is inserted into a narrow slit in the wood (Fig. 12e).

The third awl has a bone handle into which a short point is inserted. The handle is decorated with incised lines and circular dots filled with black pigment (Fig. 12c).

The last two awls are different in that their handles and points are made from a single piece of bone. On one, the handle is decorated with two bands of parallel incised lines, which were, at one time, filled with black pigment (Fig. 12f). The handle of the other is decorated with incised, spurred lines and bands of cross-hatching, all filled with black pigment (Fig. 12d). According to Osgood (1940, p. 65), the man's awl was used primarily for making holes in snowshoes or in birch bark when building or repairing a canoe. The man's awl described by Osgood does not differ greatly from one form of woman's awl that was used in the construction of birch bark baskets (Osgood, 1940, pp. 63–64). Thus, the awls described here presumably could have been used by men or women.

## Household Equipment

The collection contains eight birch bark containers, five of which are of the four-corner-folded style with the outer surface of the bark facing outward. Two of these containers are large and nearly round with handles. Their use is unknown, but they may have served primarily as *berry baskets*. The rim is formed by two small splints of wood—cranberry, according to Osgood (1940, p. 134)—fitted along the inner and outer edges of the basket. The spruce root wrapping binds the edges and ex-

tends down on the inside to bind a narrow splint of spruce root that forms an inside border. Below this splint is another identical one wrapped with red yarn. Both splints form a decorative pattern on the inside of the basket. On the outside of each basket, below the rim, are narrow pieces of bark with the inner surface facing out. These are held in place by lengthy spruce root stitches and the wrapping that covers the edges. A beaded decorative effect on the surface of the wrapped edge is achieved by slipping a strip of black painted root under the strands of the wrapping in two alternating rows to form a dark-and-light checkered design. The wooden handles, broken on both baskets, are wrapped with spruce root and are similarly beaded on the outer surface (Fig. 14a,b). Osgood (1940, pp. 133–135) described the construction of this form of basket in considerable detail.

Two oval baskets are much smaller and of somewhat similar construction. The first is rather crudely folded and has a rim that is higher at both ends than in the center. The edges consist of an inner and outer wooden splint wrapped with spruce root, which also serves to attach strips of bark on the outside, with the inner side facing out. There is no beaded decoration on the rim (Fig. 15c). The second small basket is similar, except that it is more carefully constructed and the spruce root lashing covering the edge splints is looped at right angles around each strand of lashing to cover the edges of the bark between the splints (Fig. 15b). Somewhat similar baskets are illustrated by Osgood (1940, Pl. 10h,j).

The fifth four-corner-folded container, a *cup*, is constructed in the same manner as the two large berry baskets, even to the red thread wrapping of the lower spruce root splint on the inside. There is a loop handle on one side. Red thread has also been introduced as a beading element around the rim and on the handle (Fig. 16d).

A container that is almost identical to the berry basket described by Osgood (1940, pp. 136–137) has the outer surface of the bark facing outward. There are separate pieces of bark on the sides, which are slipped between the folds near the bottom and lashed up the sides with spruce root. A short wooden splint is laid across the lower edge of the side pieces and lashed with root. This serves to hold both the side pieces and the folds at the base of the basket in place. Just below the rim is a support stick that runs around the outside of the basket and helps to hold in place the attached narrow strips of bark, which have their inner surfaces facing out. The wrapping on the edges is

similar to that on previously described baskets, except that there is no splint around the outer edge (Fig. 15a). According to Osgood (1940, p. 137), these baskets were usually about 46 cm in diameter and up to 76 cm in height, much larger than the basket just described.

The last two birch bark containers can more accurately be described as *dishes* rather than baskets. They are round, shallow, and made from a single piece of bark cut at the four corners. They are sewn with spruce root so that the corners slightly overlap. Each has a support stick just below the rim, which helps to hold in place the small strips of bark attached with the inner side facing out. At the rim there is a single splint wrapped with spruce root, and just inside the rim another splint is held in place at intervals by strips of root that fasten both splints to the vessel edge (Fig. 16a,b).

According to Osgood (1940, pp. 142–143), two species of sedge (*Carex* sp.), a grass-like plant, were used in the construction of what are commonly called *grass baskets*, mats, and lines. He further noted that baskets of this material were made by the simple twining method. The Cherry collection contains 11 baskets, nine of which are made by the twining method and two constructed of braided coils.

On twined baskets, the spacing of the weft rows is an important aspect of their manufacture. Wefts may be so tightly spaced as to virtually conceal the warps (close twining), spaced at intervals leaving the warps exposed (open twining), or constructed using a combination of the two (open and close twining). In the Cherry collection, twined baskets exhibit either simple twining, in which a single warp is engaged at each weft crossing; diagonal twining, in which a pair of warps is engaged alternately at each weft crossing; or a combination of the two (Adovasio, 177, p. 16).

Three baskets exhibit simple open twining. The first of these is the largest in the collection. The simple end selvage is produced by braiding the warps after their emergence from the final weft row. This basket is decorated with parallel rows of blue yarn covering the warps and held in place with brown thread (Fig. 17). A large basket of this type might have been used for the storage of clothing.

The second of these baskets constricts at the rim with a simple end selvage consisting of the warps knotted on themselves after the final weft course. This basket is unusual in that weft rows of thread or twine rather than sedge are placed toward the top of the basket (Fig. 18a).



The third basket exhibiting simple open twining is described in the catalog only as being "panier like." Just below the rim it is bifurcated to form a pair of rounded sections. The simple end selvage has the warps folded back on themselves over the final weft row (Fig. 19e).

A single basket is constructed of simple close twining. Parallel decorative bands, now faded, occur around the center and just below the rim. This basket has a bottom of fish skin, and the end selvage is obscured by a narrow strip of fish skin sewn over the edge with thread (Fig. 20b).

A small, straight-sided basket is constructed primarily by simple close twining, but the bottom is constructed in the simple open manner. There are faded decorative parallel bands around this basket, and the end selvage consists of braided warps (Fig. 19c).

A single basket has been diagonally twined and a decorative pattern obtained by alternating bands of open and close twining. The simple end selvage is produced by joining individual warps to adjacent warps (Fig. 20a).

Three baskets combine simple and diagonal open twining. One small basket consists of rather finely woven diagonal open twining combined with a bottom of simple open twining. This basket has a composite end selvage produced by adding a wrapping stitch to a 90° simple end selvage (Fig. 19d).

Another small basket is similar, having sides that are diagonally open-twined and a bottom of simple open twining. The end selvage is produced by knotting and twisting the ends of the warps (Fig. 19b).

The third and largest basket that is primarily diagonally open-twined has simple open twining on the bottom and the lower area of the sides. A complex end selvage is produced by twisting the warp ends and joining them to adjacent warps. This basket may at one time have had a handle (Fig. 19a).

Osgood (1940, pp. 142–143, Pl. 10d,e,g) described and illustrated a type of basket made by the simple open-twining method with wefts of twisted willow bark. He noted that the basket was begun at the top, the twining proceeding from right to left. He also briefly mentioned "tightly woven" twined baskets for which the twining started at the bottom.

The last two baskets in the Cherry collection are made by an unusual process of braided coiling. The first of these is round with a wide bottom and sides that narrow toward the rim. The basket is built up in a continuous coil of three-strand braid,

the rows sewn together with thread. There is no end selvage, as the coil simply ends and is not finished off in any way (Fig. 21). This basket is extremely flexible, at least in its present condition.

The second coiled basket is small, and its original shape was round with straight sides. Its construction is identical to that of the previously described basket. The coil is finished off by reducing the braided elements to two; there is a two-strand braided handle (Fig. 16c).

According to Mason (1904, p. 402, Pl. 140, bottom), baskets of braided coils were "a rare type of basket in America." He described and illustrated a braided and coiled "wallet" from the Koryak of Kamchatka in the American Museum of Natural History. Lee (1995, pp. 58–59) has demonstrated convincingly that Athapaskans learned to make coiled baskets from the Eskimos. Although baskets constructed of braided coils have not previously been described for the Deg Hit'an, nor, apparently, were they collected by Nelson (1983) among the neighboring Yupik Eskimos, the starts of Inupiat coiled baskets from the Point Barrow region were frequently of the four-strand braiding technique usually used for making mats (Lee, 1995, p. 62, Fig. 3, p. 57).

The Cherry collection contains five *skin bags*, which, in a general way, resemble those illustrated by Osgood (1940, Pl. 11). The first is described in the catalog as a "traveling bag" made of salmon skin. Actually, only the bottom is made from the skin of a single salmon. The sides are made of narrow strips of animal intestine. Near the rim is an inset strip of fish skin, and the opening is edged with cotton cloth. The bag is sewn throughout with thread (Fig. 18b).

A rectangular bag is made, according to the catalog, of narrow strips of bear intestine sewn together vertically with thread. The front and back are decorated with parallel rows of red yarn tassels, and the opening is edged with patterned cotton cloth. There is a sinew drawstring with a red yarn tassel at the end (Fig. 22a).

A generally rectangular utilitarian bag that narrows slightly at the opening is made of two rectangular strips of seal intestine folded over to form the front and back. A separate piece is sewn on at the opening, and there is a twine drawstring. The bag is sewn throughout with black thread (Fig. 22c).

Similarly constructed is a rectangular bag consisting of three strips of unidentified intestine folded over to form the front and back. Narrow strips of fish skin are sewn between the intestinal strips

on the front and back. Tufts of red yarn are sewn into the side seams, but most of these are damaged or missing. The opening is lined with drilling sewn on with red thread, and there is a twine drawstring. The seams are sewn with white thread (Fig. 22d).

The fifth bag is made from a swan's foot and has a broad, decorative border of fish skin. The bag is sewn throughout with thread (Fig. 22b).

The collection contains four wooden *dishes*, the sizes of which, according to Osgood (1940, pp. 119–120), indicate their use as eating dishes. Osgood described their construction from a section of spruce root taken from near the trunk of the tree, which was then burned and trimmed with a rodent-tooth tool to the desired shape. Evidence of work with such a tool is visible on all these dishes.

Three dishes are virtually identical in size, shape, and decoration. All have a wide lip with a narrow ridge running along the center. A pair of parallel grooves filled with black pigment runs around the inside wall of the dishes, and there is an unpainted groove around the outside near the bottom. All three are painted red and show some indications of use. According to Osgood (1940, p. 120), these grooves and the use of red and black pigment are characteristic of Deg Hit'an eating dishes (Fig. 23a–b). He illustrated more elaborately painted dishes (Osgood, 1959, p. 88, Fig. 8).

The fourth wooden dish is somewhat smaller and shallower than the other three. It is painted with red pigment on the inside, has a single ridge running around the lip, and a single groove just inside the lip. There is no groove on the outside (Fig. 23d).

According to Nelson (1983, p. 70; VanStone, ed., 1978, p. 46), wooden dishes were a specialty manufacture of the Deg Hit'an and were traded to the Yupik Eskimos of southwest Alaska during boat trips to the lower Yukon and along the coast as far as St. Michael. Whymper (1869, p. 265), describing his travels on the Yukon in 1867, noted that most Deg Hit'an wooden dishes were manufactured in an unnamed village not far below Anvik. The Yupik Eskimos also carved wooden dishes, but while those of the Deg Hit'an are carved from a single piece of wood, most of those of the Eskimos are made in two parts, a bottom and an upper rim.

Although the Deg Hit'an did their cooking in clay pots (Osgood, 1940, pp. 146–148), the only examples of pottery in the Cherry collection are three *miniature pots*, each one of which was enclosed in a braided-grass holder; the pot is missing

from one of the grass holders. Both remaining pots are situla-shaped, a style characterized by a flat or concave bottom, slightly flaring sides, a constricted neck, and flaring rim (Osgood, 1940, p. 146, Pl. 10a; DeLaguna, 1947, Pl. XXIII, 3; Snow, 1981, p. 612, Fig. 12d). The type of surface treatment usually associated with this shape, consisting of lines and dots (DeLaguna, 1947, Figs. 28–30, Pl. XXIV), has been termed Yukon Line-Dot, a style characteristic of late prehistoric and historic Yupik pottery (Oswalt, 1955, p. 37).

The larger of the two vessels has a pair of incised lines around the neck with two rows of dots in between. There are four parallel incised lines around the rim on the inside. The holder for this pot has a braided-grass cup-like handle (Fig. 23c). The smaller vessel is similar in shape, but the rim flares only slightly. There are a pair of encircling lines below the rim with a row of dots below each line. The grass holder for this pot lacks a bottom (Fig. 23c). The grass holder from which the pot is missing also lacks a bottom and at one time had a cup-like handle.

Nelson (VanStone, ed., 1978, p. 46) observed the manufacture of clay pots at Anvik in the winter of 1880–1881. They were made by women who kneaded a stiff clay with hair or fine feathers and then baked the vessels “inside and out for half a day.” Osgood (1940, pp. 146–147) described full-sized situla-shaped pots, tempered with ptarmigan feathers, which were made by the patch modeling method and decorated with lines and dots inscribed with a bear's tooth. According to the catalog, the miniature pots in the Cherry collection were “used for trying out oil for babies from the liver of the lush [burbot]; also used as lamps.”

The collection contains two *ladles* of spruce-wood identified in the catalog as “spoons,” although their bowls are too large to put in the mouth. According to Osgood (1940, pp. 129–130), they were used to take cooked food from a clay pot to put in wood bowls. The first has an oval bowl and an open-work handle terminating in a suspension hole. The bottom of the bowl is painted with red pigment and the handle with red and black pigment (Fig. 24d). The second ladle has a very deep, round bowl and a straight, slightly arched handle, and is undecorated (Fig. 24b). Osgood (1940, pp. 129–132; 1959, p. 87) described ladles and spoons similar to these in a variety of sizes and shapes and noted that only the handles of women's tools and utensils were painted red or black.

A flat, spatula-like utensil, which widens at the distal end and has a slightly concave surface, is



described in the catalog as a “*fish ladle*.” It presumably was used to stir fish cooking in clay pots. This ladle is rather crudely painted with red pigment and decorated in black with straight and parallel lines. In the center of the bowl is the figure of an animal, possibly a caribou (Figs. 24a, 25).

A birchwood *pestle* flares at the distal end and has a prominent knob handle. There are incised grooves at both ends, and it is decorated with red and black pigment (Fig. 24c). The catalog describes this pestle as being used as a cranberry masher. Osgood (1940, p. 175) described a pestle this size as an implement for pounding fish eggs and rotten fishheads, while smaller sized pestles served for smashing berries. The pounding was done in wooden dishes.

## Clothing

Among Northern Athapaskans, traditional clothing changed more rapidly than other items of material culture. This may have been the result of desire on the part of the Indians to identify with the white man through similar dress, but also because ready-made European garments saved work and were, in most cases, more comfortable to wear (Osgood, 1971, p. 131).

Aboriginal clothing styles appear to have been intact on the lower-middle Yukon at the time of Zagoskin's explorations in 1842–1844 (Zagoskin, 1967, pp. 244–246). However, throughout much of the Yukon valley this style had virtually disappeared by the end of the 19th century. On the lower-middle river, Nelson (VanStone, ed., 1978, p. 44) noted that in 1880 the Deg Hit'an dressed entirely in clothing purchased either from traders or the neighboring Eskimos, and only 7 years later, white cotton drilling, unbleached muslin, and calico cloth for sewing clothing were among the most desired trade items at Anvik (VanStone, 1979b, pp. 116–117). By the end of the century, Indians in many Yukon River communities greatly desired cheap clothing, including shoes, hats, and stockings (Cantwell, 1902, pp. 153–154). Therefore, it is not surprising that the Cherry collection contains few items of traditional clothing and a good many that were presumably obtained from the neighboring Yupik Eskimos.

Two sedge *hats* were made in imitation of European straw hats. According to an early observer, straw hats were popular in Yukon River communities around 1900 (Cantwell, 1902, pp. 153–154), probably among nonnatives as well as na-

tives. The first of these is of close-coiled construction. There is a single foundation element, and on the sides and brim most of the stitches are bifurcated to receive a stitch from the coil immediately above; the bifurcations are visible on both sides. The flat top of this hat has an oval start and is also characterized by a bifurcated stitch that is visible only on the inner surface. The final coil on the brim is covered with narrow strips of red wool stroud and patterned cloth. A knotted strip of patterned cloth forms a decoration in the center of the top (Fig. 26b).

The second hat, which is in poor condition, was made by the process of braided coiling described earlier for baskets. In the center of the start on the top is a bunch of fishskin strips serving as decoration. Fragments of ground squirrel skin and red wool stroud are attached at intervals around the edge of the top. The brim is edged with black-dyed fish skin. Encircling the hat just above the brim, but not visible in the photograph, is a 1.8-cm-wide band of black-dyed fish skin (Fig. 26a).

The collection contains a closed-crown, cone-shaped *hunting hat* of sprucewood, a form that was widely used by the Yupik-speaking coastal dwellers of western Alaska but is not known to have been worn by Athapaskans (Black, 1991, pp. 11–12). In the catalog it is referred to as a fisherman's hat. A strip of antler lashed across the back with willow root serves to hold the two sides of the bent wood together. A single loop of willow root also serves this purpose just below the top of the hat. Cracks in the wood in two places have been repaired with willow root. Virtually the entire hat is painted with black pigment. A narrow area in back below the antler strip is painted red (Fig. 27a). Osgood (1940, p. 263) makes one passing reference to the local manufacture of “rare wood hats.”

A *cap* is constructed of a single rectangular section of wolf skin, the two ends sewn together with commercial twine. At the rear, a small separate strip of fox skin is sewn on to form a “tail.” The open area at the top is covered with a piece of transfer-printed cotton cloth gathered and tied in the center. A fringed piece of skin has been sewn in the seam that joins the cloth to the section of wolf skin (Fig. 28). This cap, approximately 60 cm in circumference, would have covered the entire head and extended on the sides to just below the ears. A description of this cap was published previously (VanStone, 1981a, p. 20, Fig. 43).

A *woman's cap*, so identified in the catalog, is constructed of bleached and brown-dyed pieces of

fish skin, which narrow toward the top and are sewn together vertically. A round piece fills in the circular area at the top. Strips of fringed, bleached, and brown-dyed fish skin are attached all around the cap as decoration. The edging is a separate rectangular strip of skin, and there are long fringed strips extending from it on both sides (Fig. 27b). The cap is sewn with sinew throughout.

Osgood (1940, p. 273) did not describe a woman's hat. The only head covering he described was constructed of pieces of tanned ground squirrel (*Spermophilus undulatus*) skin sewn together to form a hemisphere that fitted over the top of the head and extended down on the sides far enough to cover the top of the ears. Although this hat is not illustrated, it would seem to resemble the wolf-skin hat described in this collection.

A woman's *cape and hood*, so identified in the catalog, is made of vertically sewn, alternating strips of bleached and brown-dyed fish skin sewn together and extending over the top of the hood. A center strip extends across the top of the hood and the other strips are sewn to it. A separate strip of bleached skin is sewn around the opening, and there is a drawstring of fish skin. Around the lower edge are fringed strips of brown-dyed skin, cut in a saw-toothed pattern and separated by a pair of bleached strips. The fringed edging is of brown-dyed skin. Most of the sewing is done with sinew, but some thread has been used (Fig. 29).

A woman's fishskin *parka* is intricately constructed of strips of bleached and brown-dyed salmon and blackfish skins. A decorative pattern is achieved by the use of alternating colors and narrow appliqué strips, the wider ones with diamond-shaped cutouts. The curved lower edges of this parka reach just below the knees and are cut up the sides to form flaps of equal length in front and back. The edges are decorated with alternating strips of fish skin and tufts of wolf fur. The hood appears to be unfinished, since it is unevenly cut and lacks a border (Figs. 30, 31). This garment, presumably for summer wear or as an outer parka, is a particularly fine example of the appliqué work.

The only other parka in the collection is identified in the catalog as a *boy's parka*. It is made from the backs of tanned ground squirrel skins sewn together with thread. On either side of the hood and extending down the front are V-shaped gores of clipped white caribou fur, a common feature of Yupiit and Iñupiat parkas. The bottom edge is decorated with a narrow strip of beaver fur (Fig. 32). In describing Anvik parkas, Osgood (1940, pp. 253–258) made reference to the pres-

ence of white caribou skin gores on both men's and women's parkas.

An elaborately decorated *girl's raincoat* of salmon skin is in fragile condition. It is cut up the sides to form rounded flaps in front and back. Like the previously described woman's parka, the decoration consists primarily of skin, bleached and dyed brown with narrow appliqué strips of the same material, some of which are cut to form saw-toothed patterns. The widest of these bands are placed around the upper arms and following the contours of the flaps. Narrower bands extend over both shoulders and up the back of the hood. A narrow strip of beaver fur is sewn around the lower edges. The raincoat is sewn throughout with sinew (Figs. 33, 34).

The collection contains a pair of woven cotton *belts*. The first of these is woven from multiple strands of red, blue, light brown, and dark brown cotton. At either end where the weaving ends, a narrow strip of cloth has been sewn with black thread to prevent the woven strands from coming apart. This belt is 2.5 cm wide and approximately 182 cm long, including the fringe at each end (Fig. 35b). The second belt is similar in construction but uses only dark red and tan cotton strands. Narrow strips of patterned cloth protect the weaving at either end. This belt is 3 cm wide and approximately 152 cm long (Fig. 35a).

A pair of salmon-skin *trousers* reach to just above the ankle and extend somewhat above the waist. A narrow strip of fish skin attached at the back served as a belt. The decoration on these trousers consists of four vertical bands of brown-dyed fish skin extending from the knees to just above the ankles. Strips of bleached fish skin with diamond-shaped cutouts and saw-toothed patterns are appliquéd to these bands. Two longer bands of bleached fish skin with appliqué in brown-dyed skin extend up the back of the legs from the knee to the upper thigh. There are also decorative bands of the same type around the waist and ankles. The trousers are sewn with sinew (Fig. 36). Osgood (1940, pp. 260–261) described similar trousers made of caribou skin and noted that women's trousers extended halfway between the knees and the ankles instead of just above the ankles as the men's did.

The collection contains an incomplete pair of fishskin *combination trousers and footgear* described in the catalog as having been worn by women. The trouser part of this garment has been cut away, leaving only the legs and feet. The legs are decorated with strips of fish skin with the inner



surface facing out, which are outlined with very narrow strips of skin sewn on with sinew. The soles of the feet are a single piece of skin with the inner surface facing out. A strip of skin separates the sole from the skin that extends over the instep. The most prominent decoration on the legs is a small strip of beaver fur attached to the front of each leg about halfway between the ankle and the crotch (Fig. 37). Osgood (1940, p. 262) described combination trousers and footgear made of caribou skin and worn by women.

The Cherry collection contains two pairs of salmon-skin *boots*, the uppers of which reach about halfway up the leg. On the first pair, the skins appear to be simply dried and not treated in any way; the outer surfaces of the skin face out. The soles are made of a single skin crimped about the heel and toe. A narrow strip of skin separates the soles from the uppers. There is a sinew drawstring around the upper edge, and wraparound ties of fish skin extend through loops at the ankles (Fig. 38b). The second pair is associated with the previously described trousers and has been carefully scraped and bleached, with the outer surface of the skins facing in. The soles are carefully crimped. This pair of boots is undecorated, and there is a sinew drawstring and wraparound ties of fish skin (Fig. 36). Both pairs of boots have been sewn with sinew.

According to Osgood (1940, p. 269), the Anvik-Shageluk Deg Hit'an wore "under boots" of sedge, which served the purpose of socks. The methods of manufacture were not available to him, but his informants recognized socks from the lower Yukon illustrated by Nelson (1983, p. 60, Pl. xxi, Figs. 1-2, 5) as typical. The collection contains three pairs of *socks* constructed by a combination of open and close twining that resemble those illustrated by Nelson. The close twining is confined to the soles and the area directly above. On the first pair, the selvaige is covered with a strip of red cotton cloth, and a strand of red yarn has been introduced near the point where the close twining ends and the open twining begins (Fig. 39a). The selvaige of the second pair is covered with a strip of drilling decorated with red and blue yarn. Paired parallel rows of blue and red yarn accentuate the area of close twining. Short strands of drilling are attached to the selvaige edging at the back of each sock, possibly for tying the two socks together when they are hung up to dry (Fig. 39b). On the third pair, which is undecorated, the selvaige is unfinished (Fig. 38a).

In addition, the collection contains a single pair

of *unfinished socks*. Only the close-twined sole has been completed (Fig. 40a).

Marcus Cherry collected a single pair of *moccasins* made of tanned moose hide. These have been described previously (VanStone 1981a, p. 23, Fig. 48). The bottoms are made from a single piece of hide and have T-shaped heel seams; the toe seams are straight and extend slightly onto the underside of the foot. The wraparound ankle bands have thin strips of skin sewn into the seams that join them to the bottoms. There are U-shaped inserts for the tongues, which have pieces of bleached skin sewn over their lower sections, presumably for decorative effect. This form of moccasin has been referred to as the Athapaskan type by Mason (1896, p. 355) and belongs to Hatt's (1916, pp. 165-166) series VI and Webber's (1989, p. 28) series 2 (Ab). These moccasins were tied to the wearer's feet with long strands of skin that run through holes at intervals in the bottom sections, just below and parallel to the seams joining the bottoms to the ankle bands. The strands then run through holes in the lower border of the ankle bands on either side of the inset tongues.

Decoration consists of a narrow band of quill work around the edge of the lower halves of the tongues. Between two rows of single-strand, spot-stitched sinew is a pattern of plaited quills. Between the bottom row of spot stitching and the seam, lengths of two-strand sinew wrapped with flattened quills have been sewn in. The quills in this decorative motif appear to have been dyed purple and yellow, although the colors are much faded (Fig. 41). Thompson (1990, p. 170) believed that "In construction and decoration these moccasins are far more typical of Athapaskan work from the Mackenzie Borderlands area than they are of other Deg Hit'an footwear known from this period." It is significant that Osgood (1940), in his discussion of Deg Hit'an footgear, made no reference to moccasins of the Athapaskan type.

The collection contains three pairs of *mittens*, two made of caribou skin and one of salmon skin. The first pair of caribou-skin mittens is large and extends well above the wrist; the caribou fur is turned inside. The back and front are made of a single piece, and the thumb is made of two pieces. A broad decorative band of beaver fur and clipped caribou fur is sewn over the basic mitten pattern. The area of clipped caribou fur is ornamented with parallel strands of porcupine quills and tufts of red yarn. Short strands of caribou skin are sewn to the edge of each mitten so that they can be tied together when hung up to dry (Fig. 42a). Osgood

(1940, pp. 271–272) described mittens of this type that were made for winter wear.

The second pair is made from much thinner caribou skin with the fur removed and was clearly intended for summer wear. According to Osgood (1940, p. 271), summer mittens were used only as protection for the hands when paddling a canoe. The pattern of these mittens, previously described by VanStone (1981a, pp. 21–22, Fig. 45), is simple, consisting of a front and back piece cut in such a manner that a separate piece is not needed for the thumb. A narrow strip of skin is sewn into the single seam throughout its entire length. At the wrist the edge is cut to form a fringe, each strand of which is wrapped with flattened porcupine quills.

The primary decoration is a broad band at the wrist with a quill and embroidered design. The background consists of quills folded in a double serrate line; the thread, presumably sinew, is caught into the skin between the points. The work is drawn so tightly, however, that the sewing is entirely concealed (Orchard, 1971, pp. 66, 68). The quills, although much faded, appear to have been dyed white. Across the background is an embroidered geometric design in brown cotton thread. The quills between the parallel lines were dyed yellow but are considerably faded. The band has a sinew strand border tightly wrapped with quills. Around the base of each thumb is a series of six quill-wrapped strands of sinew. Two parallel bands, each one consisting of three short sections of embroidery, extend from the base of each thumb to the top of the decorative band. There are traces of red pigment along the seam and outlining the decorative band. A faint line of pigment, largely invisible in the photograph, also runs down the front and back of each mitten (Fig. 42b).

A pair of salmon-skin mittens is identified in the catalog as having been worn by women. They are made of two pieces of bleached skin, one of which forms the upper part of the thumb; the lower part is a separate piece. Narrow strips of brown-dyed skin are sewn into the seams as decoration. A separate strip of brown-dyed skin is sewn around the wrist, and fringed pieces of the same material are sewn into the seams. Narrow strips of bleached skin are sewn over this border. The mittens are sewn throughout with sinew (Fig. 40b). Osgood (1940, p. 272) described “over mittens” of salmon skin, which were worn over ordinary fur winter mittens.

A pair of caribou-skin gloves with the clipped fur on the inside has two fingers. It is constructed essentially of two pieces of skin forming the front,

back, and one finger. The thumb is a separate piece. The seam connecting the thumb is decorated with red pigment and outlined with white-dyed porcupine quills. A broad band of clipped white caribou fur is outlined with red and blue yarn. The gloves are edged with beaver fur. A narrow strip of beaver fur is attached to each glove on the back, just above the decorative wrist band (Fig. 43d). Osgood (1940, p. 273) described caribou-skin gloves with two fingers and noted that they enabled manipulation of the fingers when holding an arrow to the bowstring, something that was not possible with ordinary mittens.

### Miscellaneous

A small ivory container with a tight-fitting wooden lid may be a *fungus ash box* since it is somewhat similar to those from the lower Yukon illustrated by Nelson (1983, Pl. LXXXVII, opp. p. 272). Extending from the lid is a double strand of rawhide, at the end of which is a piece of carved wood with a round hole in one side, possibly a scoop for the ash. The container is decorated with three parallel bands of spurred lines (Fig. 43c). The Deg Hit'an, like the neighboring Yupik Eskimos, mixed their finely ground tobacco with fungus ash.

A rectangular wooden box with a projecting handle and sliding top may be a *container for tobacco quids or matches*. There are openings on the top and bottom, but the sliding lid for the bottom is missing. The opening on the top is deeper than the one on the bottom, but the shape is the same. There are incised grooves and cross-hatchings on two surfaces (Fig. 43a). Somewhat similar quid boxes from the lower Yukon are illustrated by Nelson (1983, Pl. LXXXVI, opp. p. 270).

Like the neighboring Eskimos, Deg Hit'an men and boys took fire baths in the *qasig* (ceremonial house) and later, after their introduction by the Russians, steam baths. Associated with the traditional fire bath, and also used occasionally in the steam bath, are respirators, or smoke strainers, which the bather held in his mouth to protect his lungs not only from smoke lingering in the room, but also from the intense heat generated in the fire pit. The collection contains a single oval *respirator* made of braided strands of willow bark, which covered the mouth, chin, and a portion of the cheeks. It is convex on the outer surface, and the braids are knotted in such a manner as to form a ridge on the concave inner surface, which was grasped in the wearer's teeth (Fig. 43b). Nelson



(1983, p. 288, Fig. 96) described and illustrated an extremely well-made and more complex respirator of approximately the same size, which he obtained in the village of Shaktoolik on Norton Sound. It is constructed of very fine willow shavings. The smooth oval outline has been achieved by means of a rope-like band of shavings tightly wound with a cord of the same material. Inside this oval ring is a soft mass of shavings held in place by a netting of loosely twisted cord. On the inner side is a horizontal wooden rod, which the wearer grips in his mouth. Osgood (1940, pp. 179–180) described but did not illustrate a respirator made of fine spruce shavings and spruce root line.

The collection contains a single pair of *snowshoes* with two-piece birchwood frames, lap-spliced at the toe and lashed together with rawhide at the heel. The two crossbars mortised into the frame are straight and have heavy rawhide webbing in between. A rudimentary, very short crossbar is located just above the heel. The webbing at the front is of caribou sinew, and that at the back is of somewhat heavier rawhide laced in a hexagonal weave. This is the “Athabaskan type with rounded, spliced toe” as described and illustrated by Davidson (1937, pp. 78–84, Figs. 35–36). The harnesses are made of strips of tanned caribou skin (Fig. 44a). This style of snowshoe is widely distributed in the western Arctic and Subarctic. Osgood (1940, pp. 345–351) described the manufacture of “Athabaskan type” snowshoes at Anvik of both the pointed-toe and rounded, spliced-toe style, noting that the latter was by far the most common.

A *canoe paddle* of sprucewood has a handle somewhat less than half the length of the blade. The shape of the blade is lanceolate, and it has a slight ridge running down the center. The handle is oval; at the end it flares slightly and is flattened (Fig. 44b). Osgood (1940, pp. 373–375) described similar paddles and noted that they were sometimes decorated with black and red paint.

One of the more unusual objects in the Cherry collection is a *model qasgiq*, which was presumably made for the collector. The *qasgiq*, usually the most conspicuous structure in the Eskimo and Indian villages of southwest Alaska, had many functions, but most important, it was the central place in the lives of men and boys. In addition to being their eating and sleeping place, it also served as a workshop and the place where sweat baths were taken at frequent intervals during the winter. It was also the location of important ceremonies, including dances and feasts honoring the dead and propitiating the spirits of game animals.

The front and two sides of this model, which is approximately 35 cm square, about 40 cm high in the center, and painted with red pigment, are constructed of a single piece of wood, slightly curved by steaming and lashed together at the corners with spruce root. The back consists of two overlapping pieces lashed with root, and the floor is a single piece lashed at intervals to the sides. Around the upper edges of the sides are four shaped strips of wood forming a rim that is held in place with wooden pegs. In the center of the front piece near the bottom edge is a square opening, which represents the entrance from the summer passageway into the inner room of the *qasgiq*. In winter this door was sealed, and the occupants entered through an underground passage, emerging through a hole in the plank floor near the fireplace. This part of the plank floor could be removed when a fire was built for sweat baths.

The cover of the model is a stylized representation of the structure's roof, which was cribbed in the four corners so that no center posts were required. This cover consists of four triangular pieces lashed together with root near the top and bottom. At the top is a square opening to admit light and release smoke. It is covered with a small piece of intestine held in place by a framework of four narrow strips of wood pegged in place. The roof was hinged to the main body of the structure along one side with three strips of rawhide, which are now broken. On the opposite side is a broken loop handle of the same material (Fig. 45).

In the interior of the model (Fig. 46) there are strips of wood (approximately 6 cm wide) along all four sides; these are pegged in place and also lashed to the sides, representing the benches. On these benches are crude wooden figures representing persons taking part in a ceremony, five along the back and along one side, six (two of which are missing) on the other, and four along the front (not visible in the photograph). Worked to a pointed peg at the base, which extends through a hole in the bench, these figures lack arms and legs and the features are only crudely indicated. In the center of the back bench, facing the entrance, is a single figure raised above and in front of the others on a thin stick; the figure holds a long stick pointed forward toward the entrance. A similar figure on the left bench lacks the horizontal stick. Unlike the other figures on the benches, these two have legs. They also have small wooden pegs on each side of the head, possibly representing antlers.

Below the benches, on the floor of the *qasgiq*, is a square framework of narrow strips of wood

pegged to the floorpiece, which originally held six figures. Three of these are along the back, a fourth is missing, and there is one on each side. The entrance is flanked by a figure on each side; the bases of these two figures, which face the back bench, form long pegs inserted directly into the floor of the *qasgiq*. According to the brief accession notes that accompany this model, these two figures are identified as shamans.

Although it is impossible to say with certainty which ceremony is being celebrated in this model *qasgiq*, Nelson (1983, pp. 287–288) noted that the presence of long wooden rods is associated with the Great Feast of the Dead, a common memorial festival in one form or another throughout western and northwestern Alaska. Osgood (1940, pp. 290–320), whose account of the construction of an Anvik *qasgiq* is very detailed, also described the “lucky pole ceremony,” performed about the time of the winter solstice. For this ceremony, a spruce tree was cut down to obtain a pole of a height equal to the distance between the floor of the *qasgiq* and the smoke hole. The pole was then decorated with hawk feathers and, to the accompaniment of a ceremonial song, brought into the *qasgiq* through the smoke hole. The pole’s maker had previously presided at a ceremony in honor of the dead.

As the pole was brought into the *qasgiq*, the person holding the butt end, a shaman, made noises in imitation of birds and animals. At the end of the ceremony, some men tried to climb the pole, which had been made slippery by many greasy hands. The successful climber pulled the pole up through the smoke hole while all others present threw up their hands and yelled. According to Osgood (1940, pp. 422–423), the purpose of the lucky pole ceremony was to increase the number of game animals. The presence in this model *qasgiq* of figures raised on poles suggests the depiction of a ceremony similar to those described by Nelson and Osgood. The use of poles or sticks is also characteristic of several other important Deg Hit’an social and religious ceremonies (Osgood, 1958, pp. 73–81, 96–134, 143–146).

The only raw material in the Cherry collection is a bundle of *nettle fibers*. Nettle fibers were used in the construction of nets and line for snares. According to Osgood (1940, pp. 115–116), nettle was collected in the fall. It was dried before removal of the bark, which was then twisted into lines. The natural length of the strands was about 60 cm.

Although the Cherry collection contains no examples of the pigments used to decorate items of

material culture, it will be recalled that a number of objects are decorated, notably with red and black pigments. According to Osgood (1940, pp. 383, 385), red paints were obtained from red ochre excavated from locations that were traditionally known. Red paint could also be obtained from jasper ground in a paint mortar and mixed with blood and water. Black paint was made by grinding black stones found on the beach and mixing them with blood and water. Mixing sprucewood charcoal and fish oil also produced black paint (Osgood, 1940, p. 386). Painting was done with a bunch of spruce shavings or a brush made from human hair (Osgood, 1959, p. 87).

### III. Conclusions

As previously noted, trade between the Anvik-Shageluk Deg Hit’an and their Eskimo neighbors was of considerable importance to both peoples. There was a particular demand for Deg Hit’an manufactures among Eskimo inhabitants of the Norton Sound region. According to Osgood (1958, p. 62), there was a village, probably the now-abandoned settlement of Klikitarik, about a day’s travel from St. Michael that was the focal point for the exchange of goods. Most of the fall trading journeys were undertaken immediately after freeze-up and those in spring just before break-up of the ice. Anvik traders would depart with a sled load of wooden bowls, wolverine skins, and dried fish, which they hoped to exchange for sea mammal products. The route followed the Anvik River to near its headwaters and then one of the creeks flowing into Norton Sound; the trip usually took about 8 days.

Although the Anvik River route to Norton Sound was the most important avenue of contact with their Eskimo neighbors, the Anvik-Shageluk Deg Hit’an also met them in other areas. Direct contact took place at the mouth of the Innoko River, on the lower Yukon, at St. Michael, and in the Yukon Delta area (Zagoskin, 1967, pp. 191–197).

Although historical sources provide only limited information concerning the mechanisms of exchange between Eskimos and Indians, it seems clear that a formalized system of trading partners who offered protection to one another existed here as it did when the two peoples traded together elsewhere in Alaska (Burch and Correll, 1972, p. 26; Correll, 1972, p. 173; Clark and Clark, 1976, pp. 196–198).



Trade networks involving the Anvik-Shageluk Deg Hit'an and Norton Sound Eskimos were still functioning at the time of Nelson's travels. During the summer of 1879 when Nelson was at St. Michael, Anvik Indians descended the Yukon in *um-iaqs* to exchange wooden dishes and bowls for seal oil and other coastal products (Nelson, 1983, p. 232). St. Michael, an ethnically mixed community, had been the center of trade in western Alaska throughout the Russian period, but beginning in the early 1880s its role as a cosmopolitan trading center increased considerably. The more intensive trade of the Alaska Commercial Company gave the community an atmosphere of excitement and affluence. Beginning in late June, Indians and Eskimos gathered there hoping to trade with the Alaska Commercial Company agents who had come down the Yukon to meet the annual supply ship. While waiting for the ship, the Eskimos and Indians traded with each other (Elliott, 1886, pp. 413-414; Nelson, 1887, pp. 12-13; Porter, 1893, pp. 253-254).

Zagoskin (1967, p. 244), during his travels on the Yukon in 1842-1844, was the first to note that the Deg Hit'an had adopted the "clothing, customs, and beliefs" of their Eskimo neighbors. "Like the coastal people they hold memorial services for their relatives. They puncture holes at the corners of their lower lip and insert beads and other ornaments; they crop and shave their hair and steam themselves in the *kazhim* [*qasgiq*]." Zagoskin (1967, p. 246) further noted that the Deg Hit'an constructed their winter houses and "kazhims" "on the model of the coastal tribes."

Nelson was also of the opinion that the Deg Hit'an had borrowed a considerable body of customs and beliefs from their Eskimo neighbors. He saw this as the result of the long history of interaction between the two peoples and was convinced that the Deg Hit'an were the borrowers because Eskimo cultural traits were found only among Indians living in close proximity to Eskimo territory (VanStone, ed., 1978, p. 14).

More recent students of Athapaskan culture have been less willing to commit themselves on this subject, although they readily acknowledge the obvious resemblances. In writing of the rich ceremonial life of the Anvik-Shageluk Deg Hit'an, Osgood (1959, p. 274) noted that his research failed to reveal satisfying evidence of the borrowing of most ceremonies from the neighboring Eskimos. His informants believed the ceremonies to be basically Athapaskan, and he was unwilling to make a judgment either way in the matter.

Whatever may have been the extent of Deg Hit'an borrowing, it is indisputable that both groups occupied large permanent villages, had salmon-based economies, and made similar kinds of implements. The Cherry collection described in this study illustrates the difficulty in distinguishing ethnicity in southwest and west-central Alaska on the basis of technology. Only three categories of objects in the collection (one-piece wooden dishes, moccasins, and snowshoes) can be identified with certainty as typically Athapaskan. With specific reference to material culture, it is clear that the Deg Hit'an way of life resembled to a marked degree that of the Eskimos of west and southwest Alaska.

## Acknowledgments

The author is grateful to William T. Stanley and David E. Willard of the Field Museum's Department of Zoology for the identification of feathers and mammal skins used in the manufacture of artifacts in the Cherry collection, and to Ronald L. Weber, who called his attention to the significance of braided coiled baskets. The drawings in this study were made by Lori Grove, and the photographs are the work of Diane Alexander White. Several drafts of the manuscript were typed by Loran H. Recchia. The author also expresses his appreciation for the helpful comments of three anonymous reviewers.

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Appendix

The Cherry Deg Hit'an Collection (Accession 62)

Following is a list of the Cherry Deg Hit'an collection described in this study. For reasons explained in the Introduction, this is not a complete list of the collection as it appears in the catalog of the Department of Anthropology, Field Museum of Natural History. Artifact identifications are, with a few exceptions, those provided by the collector.

LAND HUNTING EQUIPMENT		13385	harpoon for king salmon (Fig. 9c)
<i>Bear Hunter's Outfit (1)</i>		12801	model fish trap (Fig. 10)
12477	bow (Figs. 3a, 5c)	12418	gill net for salmon trout
13565	wrist protector (Fig. 2c)	13166	gill net for salmon trout
12466	quiver (Fig. 2a)	19581	drag net (?) for salmon trout (Fig. 11)
12467	arrow (Fig. 4b)	19580	netting for blackfish dip net (Fig. 12h)
12468	arrow (Fig. 4c)	12314	cottonwood bark net floats (Fig. 12a)
12469	arrow (Fig. 4e)	12385	net shuttle (Fig. 12b)
12470	arrow		
12471	arrow (Fig. 4d)	TOOLS	
12473	arrow (Fig. 4a)	12013	adze (Fig. 13b)
12474	arrow	12020	adze (Fig. 13a)
12475	arrow	12093	adze blade (Fig. 13c)
14733	lance (Fig. 6b)	12098	skin scraper (Fig. 13d)
<i>Bear Hunter's Outfit (2)</i>		12094	skin scraper blade (Fig. 13e)
12513	bow (Fig. 3b, 5a)	12097	skin scraper blade (Fig. 13g)
12486	arrow (Fig. 7b)	12096	knife blade (Fig. 13f)
12515	arrow (Fig. 7d)	12336	birch bark remover (Fig. 13i)
12517	arrow (Fig. 7c)	12337	birch bark remover (Fig. 13h)
12527	arrow (Fig. 7e)	12369	awl (Fig. 12g)
13377	lance (Fig. 6c)	12364	awl (Fig. 12e)
		12366	awl (Fig. 12c)
		12363	awl (Fig. 12f)
		12365	awl (Fig. 12d)
<i>Additional Land Hunting Equipment</i>		HOUSEHOLD EQUIPMENT	
12521	bow (Figs. 3c, 5b)	13048	birch bark berry (?) basket (Fig. 14b)
12488	bow (Fig. 6a)	13049	birch bark berry (?) basket (Fig. 14a)
12485	arrow (Fig. 7f)	14969	birch bark basket (Fig. 15c)
12484	arrow (Fig. 7a)	14968	birch bark basket (Fig. 15b)
12483	arrow	14965	birch bark cup (Fig. 16d)
12525	arrow	13045	birch bark berry basket (Fig. 15a)
12526	arrow (Fig. 8b)	14966	birch bark dish (Fig. 16b)
12487	arrow (Fig. 8a)	14967	birch bark dish (Fig. 16a)
12518	arrow	12441	grass basket (Fig. 17)
12523	arrow (Fig. 8e)	12330	grass basket (Fig. 18a)
12524	arrow (Fig. 8d)	12503	grass basket ("panier-like") (Fig. 19c)
12510	arrow (Fig. 8c)	12407	grass basket (Fig. 20b)
12511	arrow (Fig. 8f)	12380	grass basket (Fig. 19c)
12095	unfinished lance blade (?) (Fig. 2d)	12379	grass basket (Fig. 20a)
12610	model sinew spring trap (Fig. 2b)	12384	grass basket (Fig. 19b)
13836,1-2	bullet mold (Fig. 2e)	12381	grass basket (Fig. 19d)
FISHING TACKLE		12335	grass basket (Fig. 19a)
13287	harpoon for king salmon (Fig. 9a)	12376	grass basket (Fig. 21)
13383	harpoon for king salmon (Fig. 9b)	12440	grass basket (Fig. 16c)
		13098	traveling bag (Fig. 18b)
		12086	bag (Fig. 22a)
		13084	bag (Fig. 22c)



13112 bag (Fig. 22d)  
 12601 swan's foot bag (Fig. 22b)  
 12849 wooden dish (Fig. 23b)  
 12844 wooden dish (Fig. 23a)  
 12910 wooden dish  
 12939 wooden dish (Fig. 23d)  
 12444 clay pot with grass holder (Fig. 23c)  
 12442 clay pot with grass holder (Fig. 23e)  
 12443 grass holder for clay pot  
 13828 ladle (Fig. 24d)  
 17924 ladle (Fig. 24b)  
 17922 fish ladle (Figs. 24a, 25)  
 12320 pestle (Fig. 24c)

## CLOTHING

12377 twined grass hat (Fig. 26b)  
 12378 twined grass hat (Fig. 26a)  
 13043 hunting hat (Fig. 27a)  
 14963 cap (Fig. 28)  
 13103 woman's cap (Fig. 27b)  
 13108 woman's cape and hood (Fig. 29)  
 13094 woman's parka (Figs. 30–31)  
 13078 boy's parka (Fig. 32)  
 13091 girl's raincoat (Fig. 33–34)  
 14979 belt (Fig. 35a)  
 14979,1 belt (Fig. 35b)

13095 trousers (Fig. 36)  
 13090 woman's combination trousers and footgear (Fig. 37)  
 13115–16 boots (Fig. 38b)  
 13096–97 boots (Fig. 36)  
 12928,1–2 socks (Fig. 39a)  
 12926,1–2 socks (Fig. 39b)  
 12927,1–2 socks (Fig. 38a)  
 12426–27 unfinished socks (Fig. 40a)  
 14964 moccasins (Fig. 41)  
 13064 mittens (Fig. 42a)  
 14972 mittens (Fig. 42b)  
 13105–06 woman's mittens (Fig. 40b)  
 13063 gloves (Fig. 43d)

## MISCELLANEOUS

13663 fungus ash box (?) (Fig. 43c)  
 13650 container for tobacco quids or matches (?) (Fig. 43a)  
 12423 respirator (Fig. 43b)  
 13141–42 snowshoes (Fig. 44a)  
 13141–42 snowshoes (Fig. 44a)  
 14962 paddle (Fig. 44b)  
 14978 model *qasgiq* (Figs. 45–46)  
 12421 nettle fibers



FIG. 2. a, quiver (12466); b, model sinew spring trap (12610); c, wrist protector (13565); d, unfinished lance blade (12095); e, bullet mold (13836). (FMNH neg. no. 112720.)

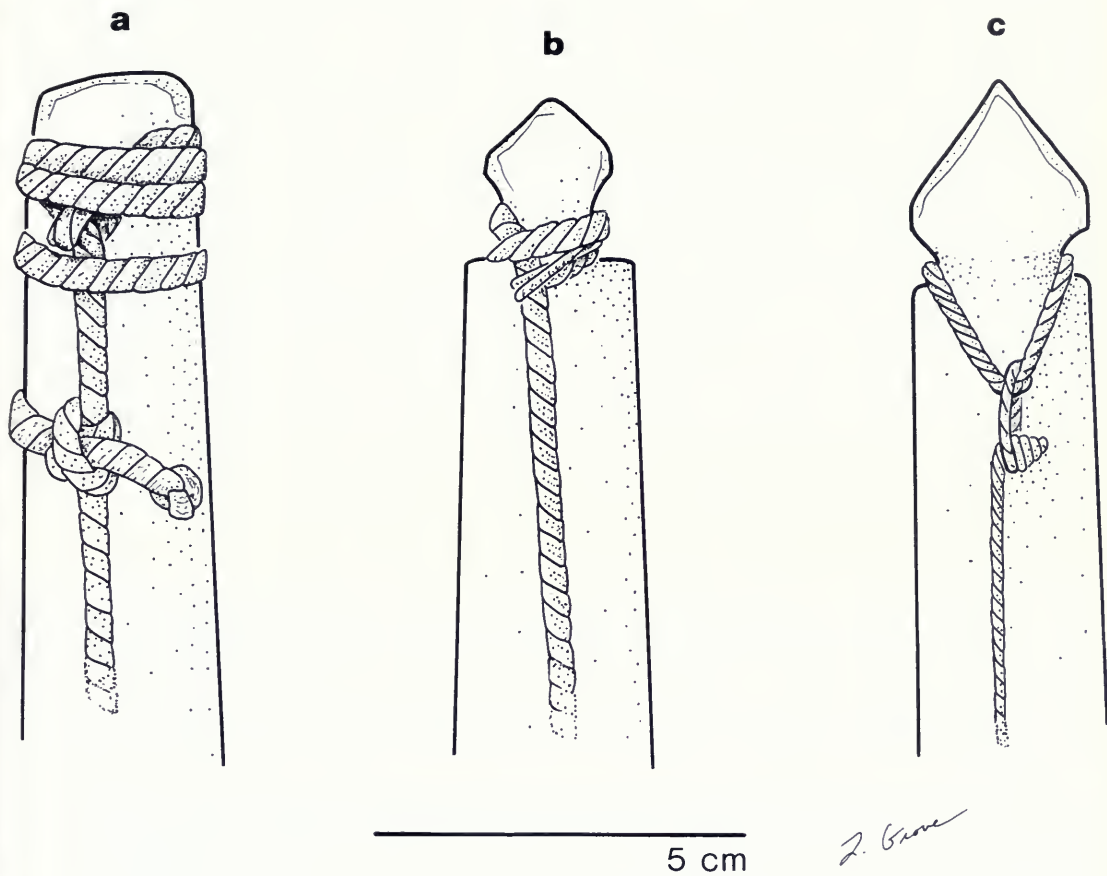


FIG. 3. a, bow (12477); b, bow (12513); c, bow (12521).



FIG. 4. a, arrow (12473); b, arrow (12467); c, arrow (12468); d, arrow (12471); e, arrow (12469). (FMNH neg. no. 112717.)

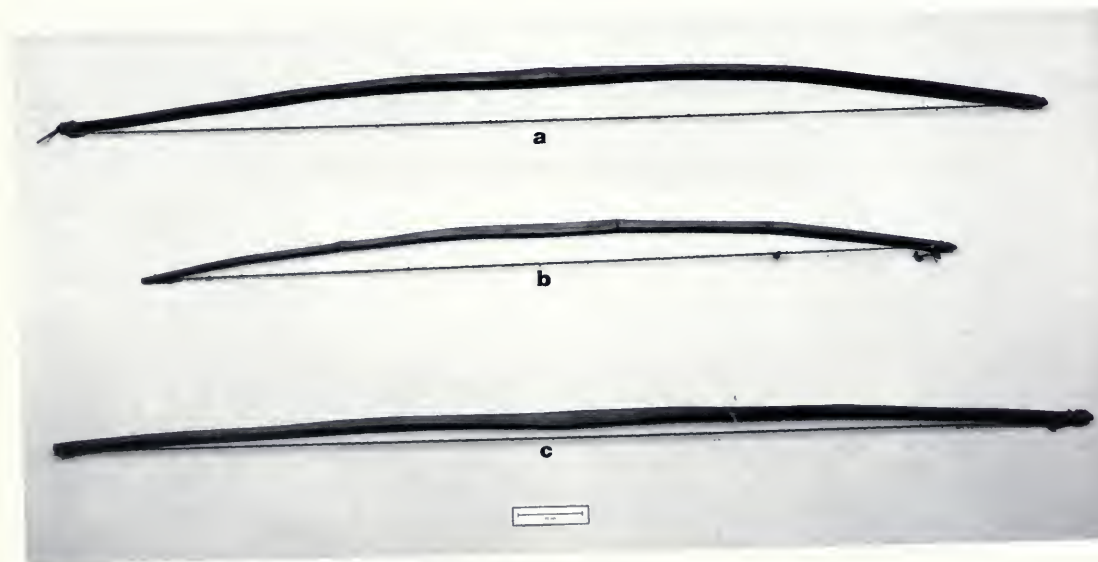


FIG. 5. a, bow (12513); b, bow (12521); c, bow (12477). (FMNH neg. no. 112715.)

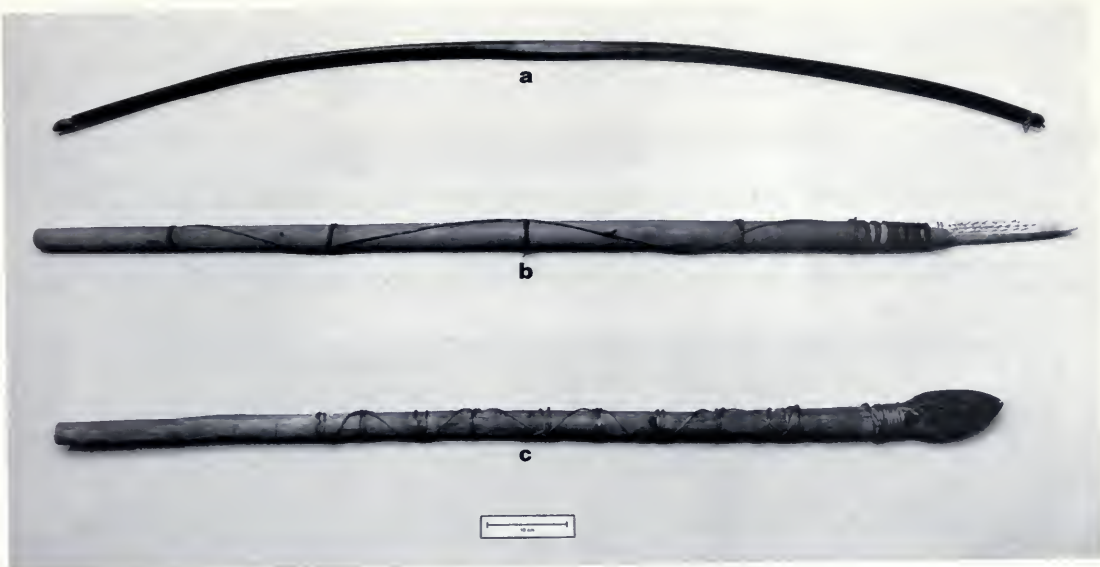


FIG. 6. a, bow (12488); b, lance (14733); c, lance (13377). (FMNH neg. no. 112714.)



FIG. 7. a, arrow (12484); b, arrow (12486); c, arrow (12517); d, arrow (12515); e, arrow (12527); f, arrow (12485). (FMNH neg. no. 112716.)



FIG. 8. a, arrow (12487); b, arrow (12526); c, arrow (12510); d, arrow (12524); e, arrow (12523); f, arrow (12511). (FMNH neg. no. 112713.)

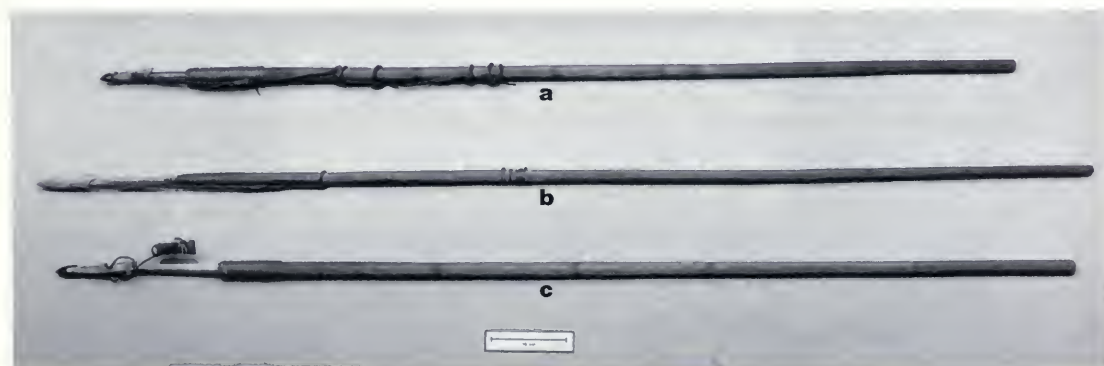


FIG. 9. a, harpoon for king salmon (13287); b, harpoon for king salmon (13383); c, harpoon for king salmon (13385). (FMNH neg. no. 112718.)



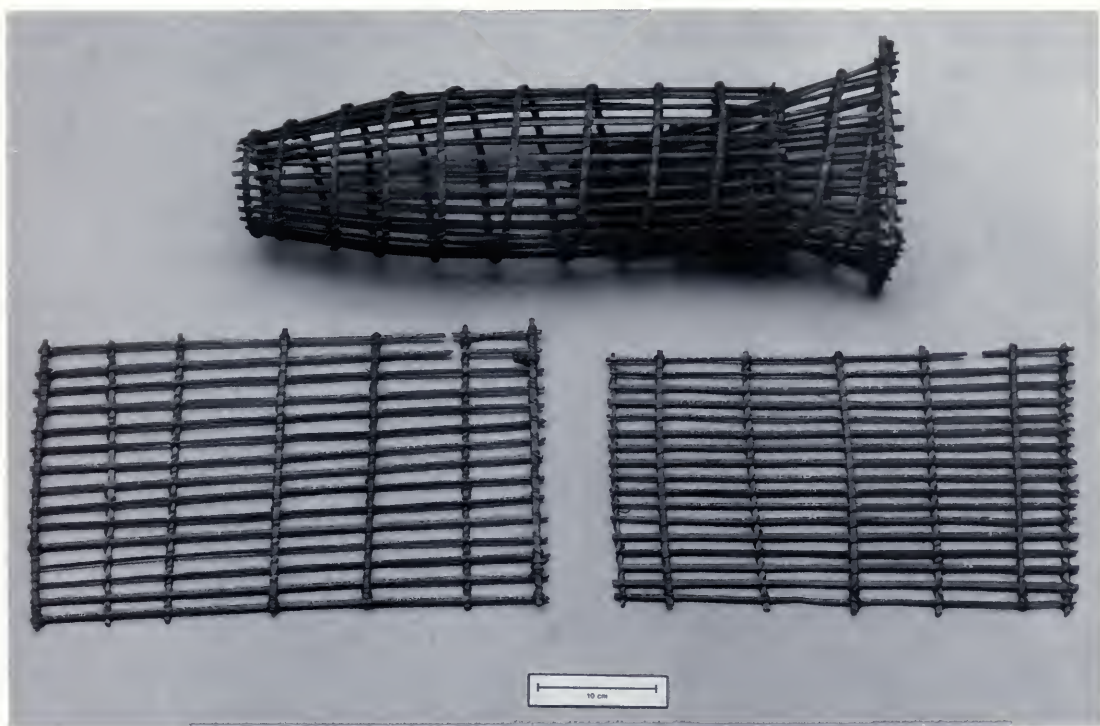


FIG. 10. Model fish trap (12801). (FMNH neg. no. 112722.)

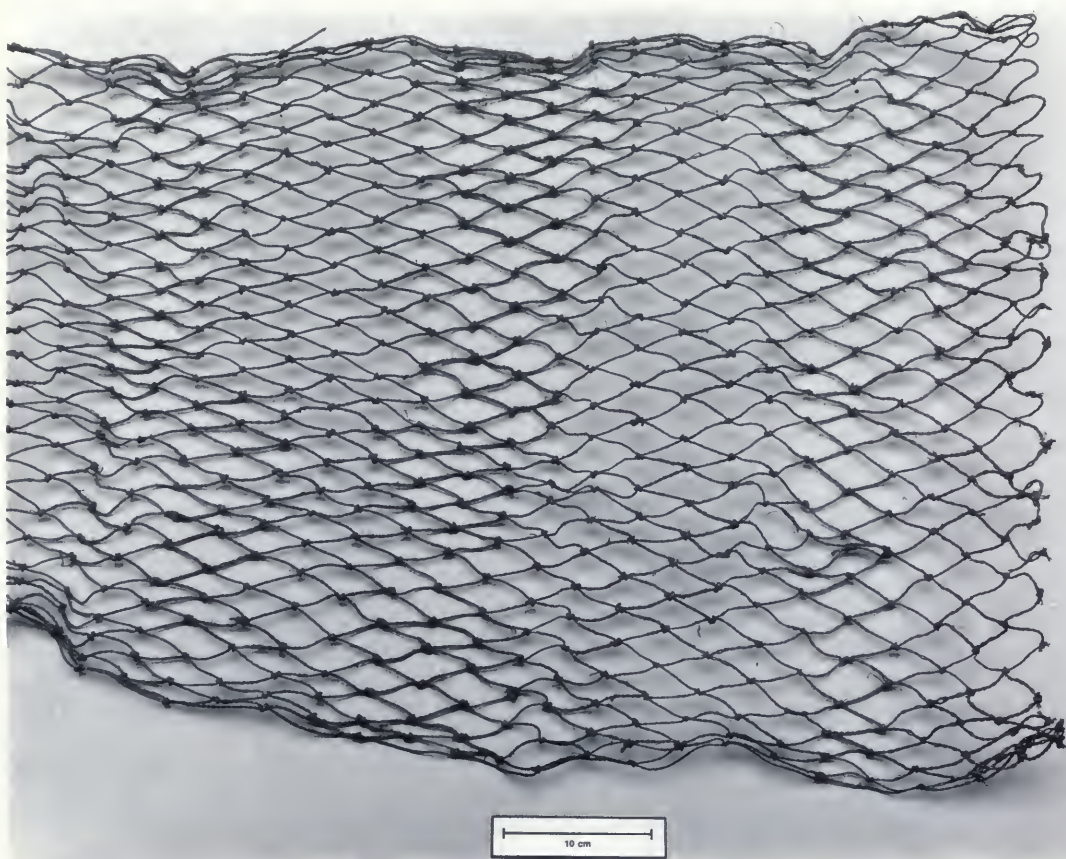


FIG. 11. Drag net for salmon trout (?) (19581). (FMNH neg. no. 112721.)



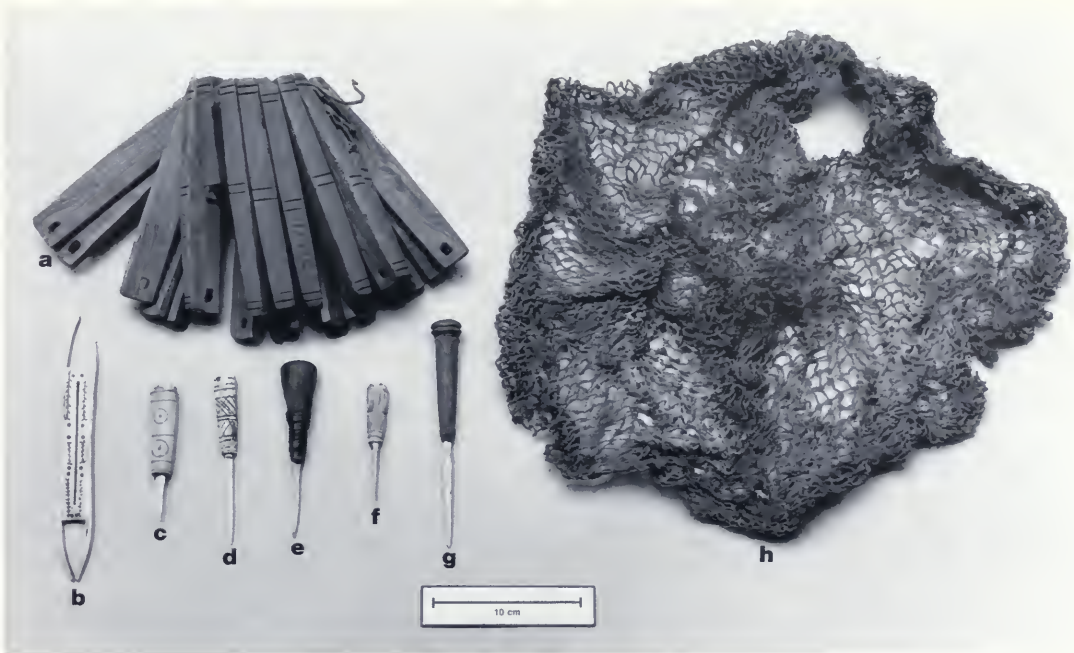


FIG. 12. a, net floats (12314); b, net shuttle (12385); c, awl (12366); d, awl (12365); e, awl (12364); f, awl (12363); g, awl (12369); h, netting for blackfish dip net (19580). (FMNH neg. no. 112719.)

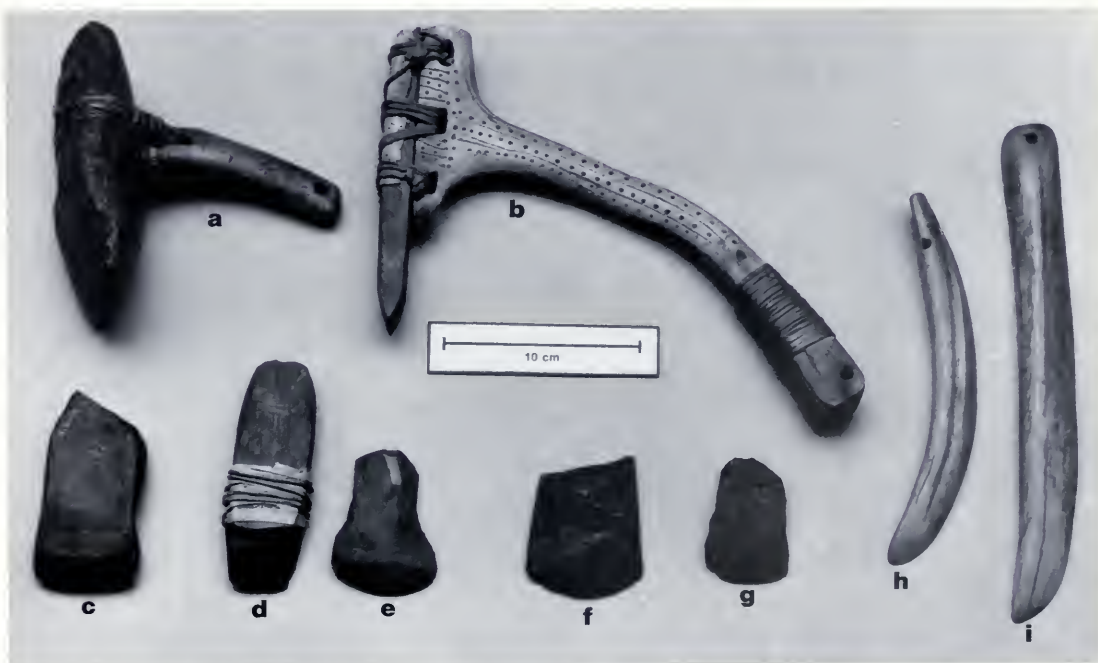


FIG. 13. a, adze (12020); b, adze (12013); c, adze blade (12093); d, skin scraper (12098); e, skin scraper blade (12094); f, knife blade (12096); g, skin scraper blade (12097); h, birch bark remover (12337); i, birch bark remover (12336). (FMNH neg. no. 112723.)



FIG. 14. a, birch bark berry (?) basket (13049); b, birch bark berry (?) basket (13048). (FMNH neg. no. 112734.)



FIG. 15. a, birch bark berry basket (13045); b, birch bark basket (14968); c, birch bark basket (14969). (FMNH neg. no. 112736.)



FIG. 16. a, birch bark dish (14967); b, birch bark dish (14966); c, grass basket (12440); d, birch bark cup (14965). (FMNH neg. no. 112738.)



FIG. 17. Grass basket (12441). (FMNH neg. no. 112731.)



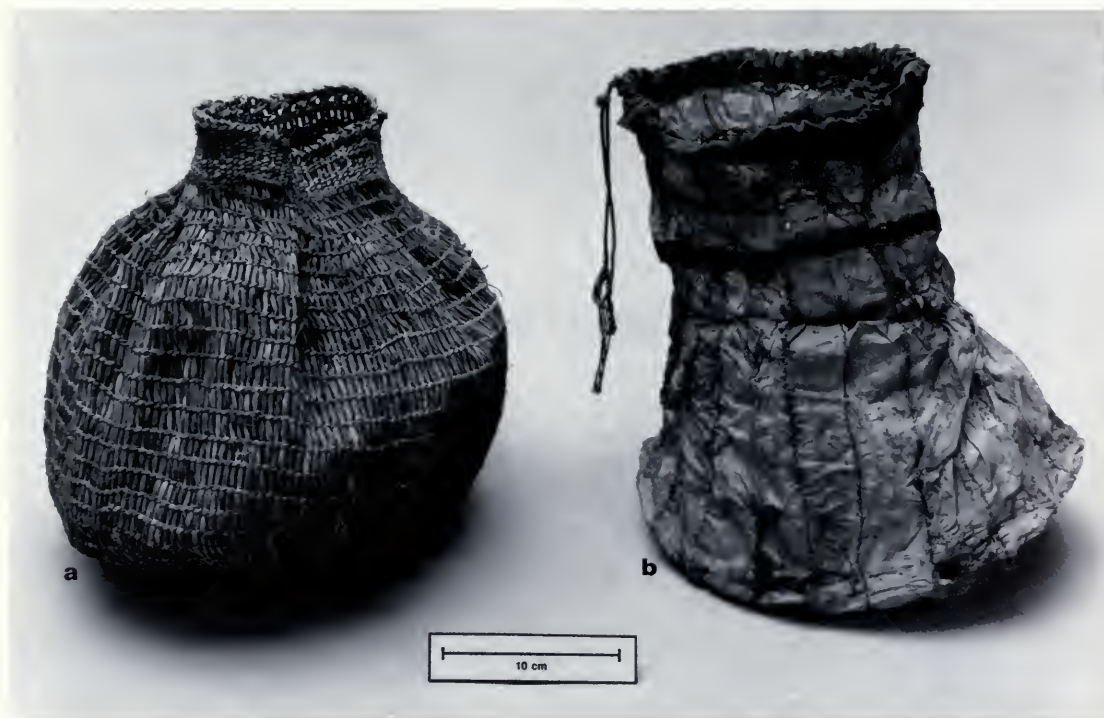


FIG. 18. a, grass basket (12330); b, traveling bag (13098). (FMNH neg. no. 112733.)



FIG. 19. a, grass basket (12335); b, grass basket (12384); c, grass basket (12380); d, grass basket (12381); e, grass basket (12503). (FMNH neg. no. 112732.)

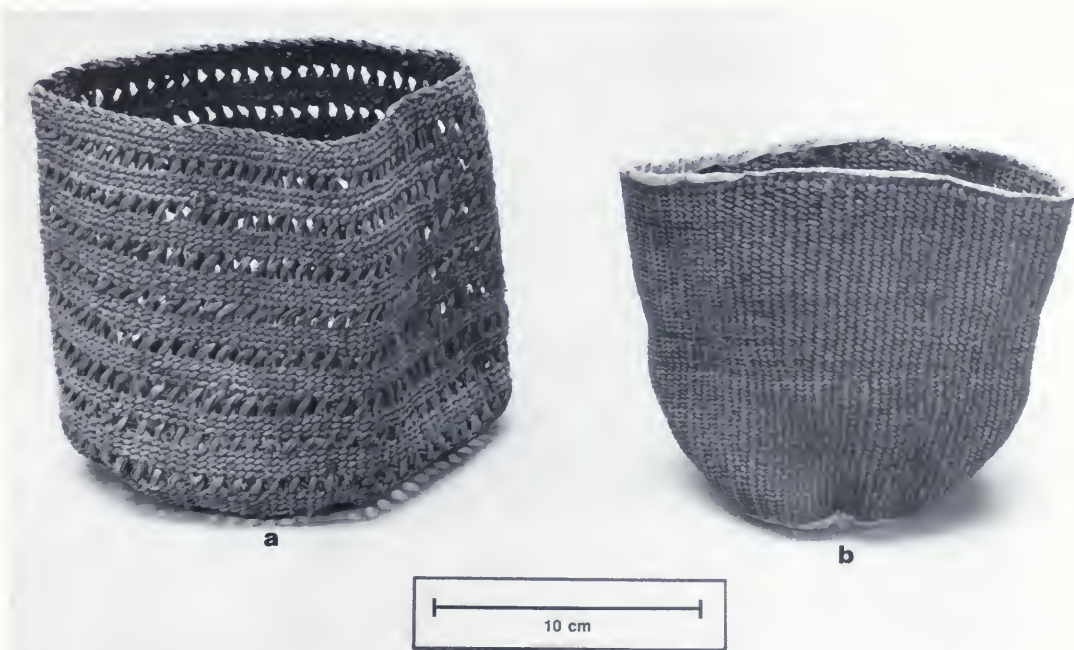


FIG. 20. a, grass basket (12379); b, grass basket (12407). (FMNH neg. no. 112735.)



FIG. 21. Grass basket (12376). (FMNH neg. no. 112737.)





FIG. 22. a, bag (12086); b, swan's foot bag (12601); c, bag (13084); d, bag (13112). (FMNH neg. no. 112764.)



FIG. 23. a, wooden dish (12844); b, wooden dish (12849); c, clay pot with grass holder (12444); d, wooden dish (12939); e, clay pot with grass holder (12442). (FMNH neg. no. 112766.)



FIG. 24. a, fish ladle (17922); b, ladle (17924); c, pestle (12320); d, ladle (13828). (FMNH neg. no. 112765.)

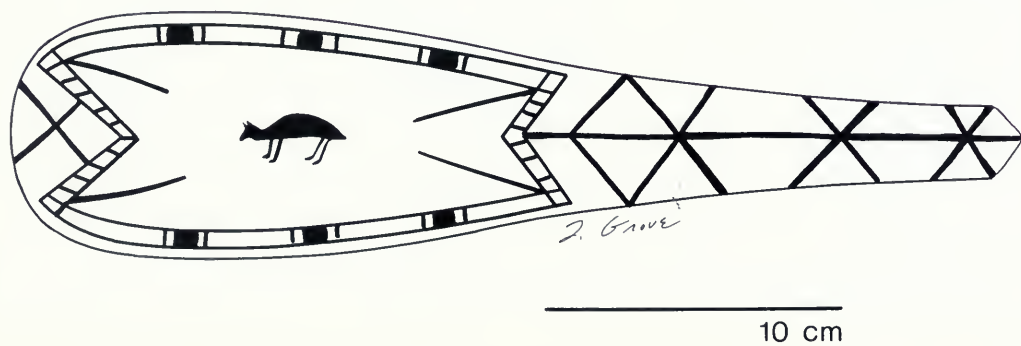


FIG. 25. Fish ladle (17922).



FIG. 26. a, grass hat (12378); b, grass hat (12377). (FMNH neg. no. 112768.)

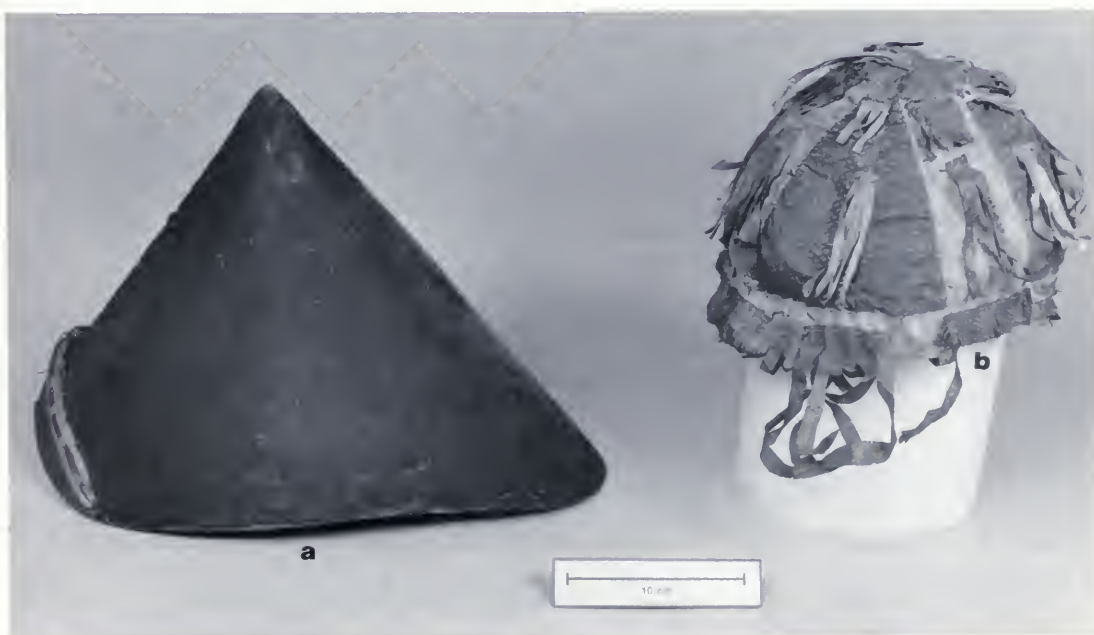


FIG. 27. a, hunting hat (13043); b, woman's cap (13103). (FMNH neg. no. 112769.)





FIG. 28. Cap (14963). (FMNH neg. no. 106796.)



FIG. 29. Woman's cape and hood (13108). (FMNH neg. no. 112763.)

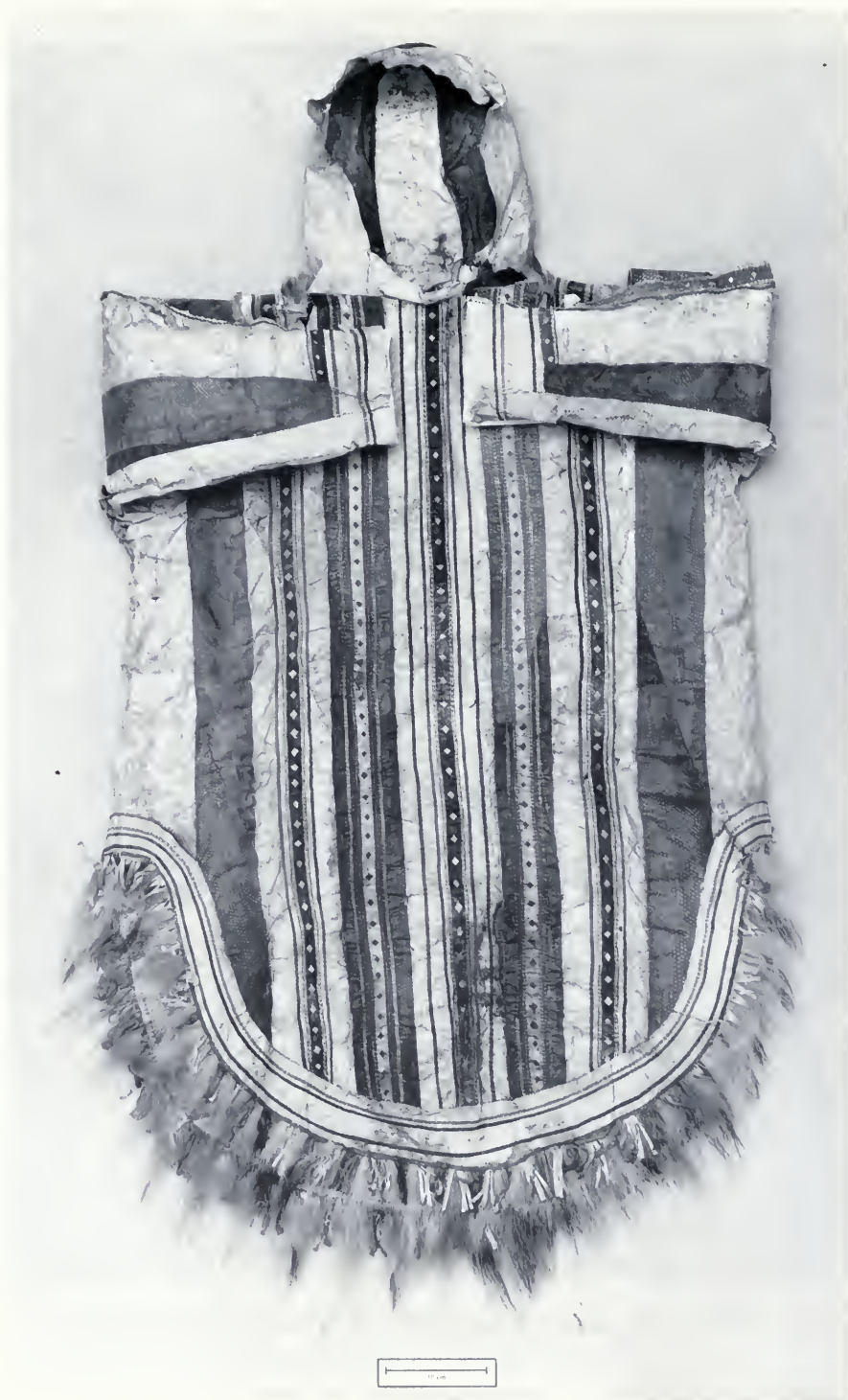


FIG. 30. Woman's parka, front (13094). (FMNH neg. no. 112724.)





FIG. 31. Woman's parka, back (13094). (FMNH neg. no. 112725.)



FIG. 32. Boy's parka (13078). (FMNH neg. no. 112728.)





FIG. 33. Girl's raincoat, front (13091). (FMNH neg. no. 112726.)





FIG. 34. Girl's raincoat, back (13091). (FMNH neg. no. 112727.)

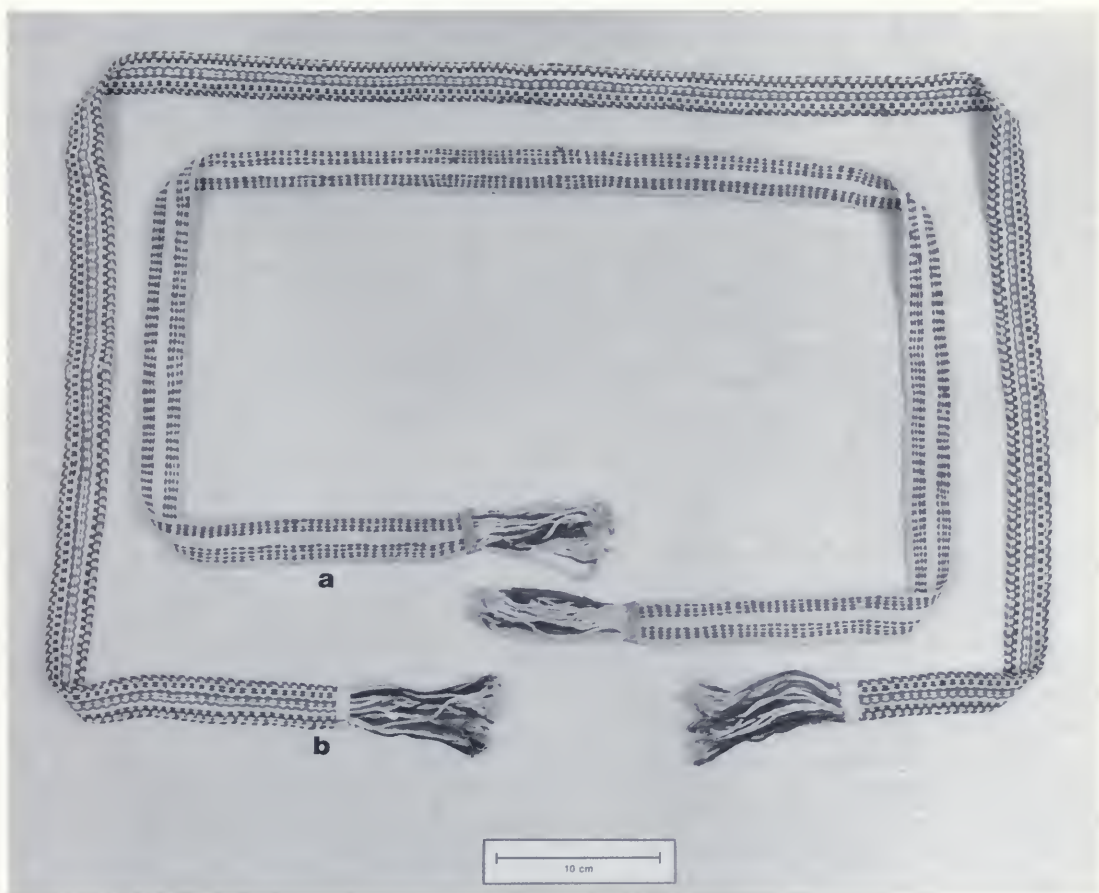


FIG. 35. a, belt (14979); b, belt (14979,1). (FMNH neg. no. 112767.)



FIG. 36. Trousers and boots (13095-97). (FMNH neg. no. 112729.)





FIG. 37. Woman's combination trousers and footgear (13090). (FMNH neg. no. 112730.)



FIG. 38. a, socks (12927); b, boots (13115-16). (FMNH neg. no. 112762.)

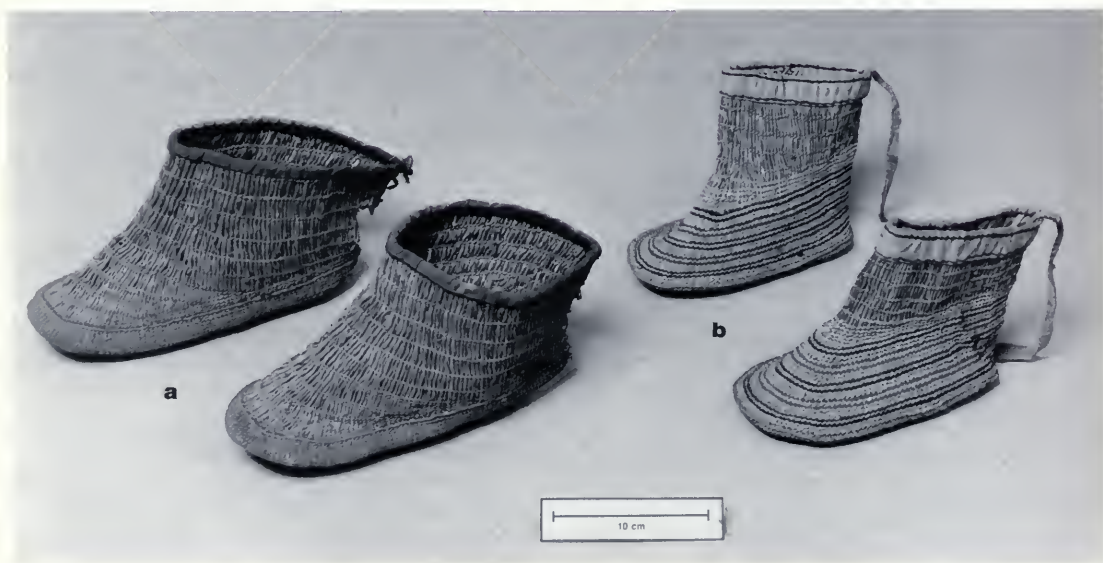


FIG. 39. a, socks (12928); b, socks (12926). (FMNH neg. no. 112755.)

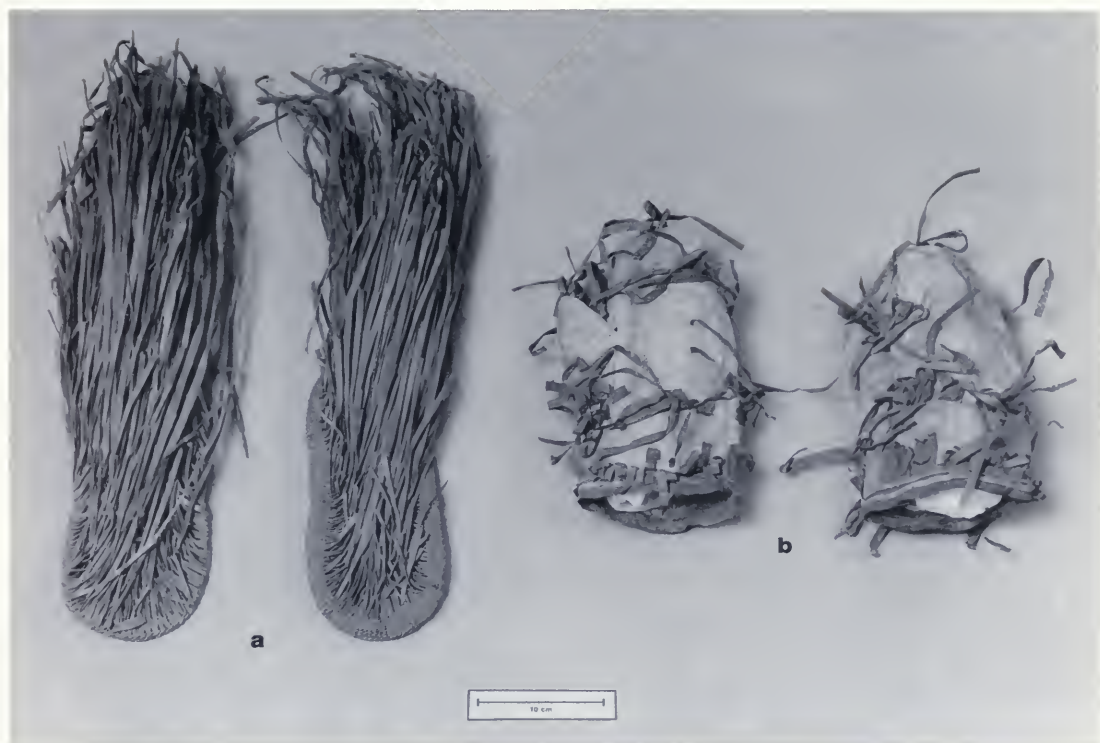


FIG. 40. a, unfinished socks (12426–27); b, woman's mittens (13105–06). (FMNH neg. no. 112760.)



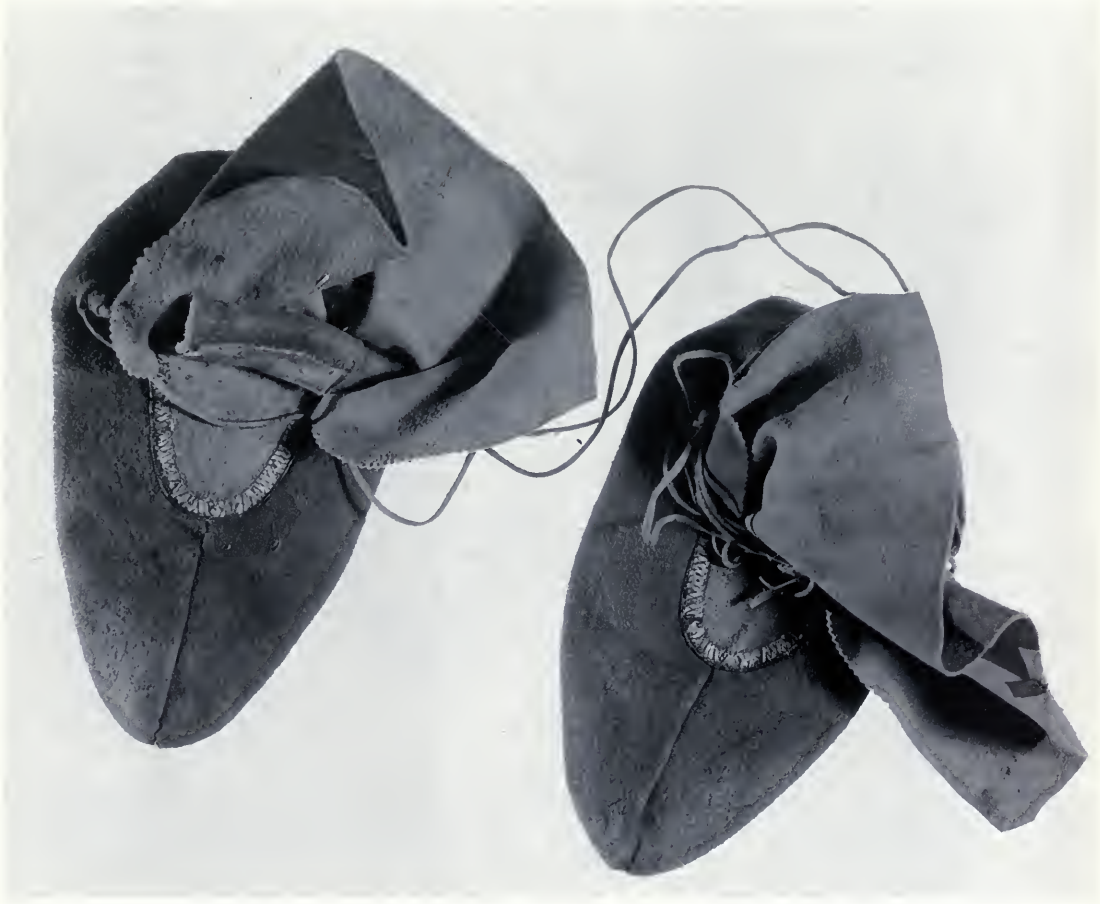


FIG. 41. Moccasins (14964). (FMNH neg. no. 106820.)



FIG. 42. a, mittens (13064); b, mittens (14972). (FMNH neg. no. 112759.)



FIG. 43. a, container for tobacco quids or matches (13650); b, respirator (12428); c, fungus ash box (13663); d, gloves (13063). (FMNH neg. no. 112761.)

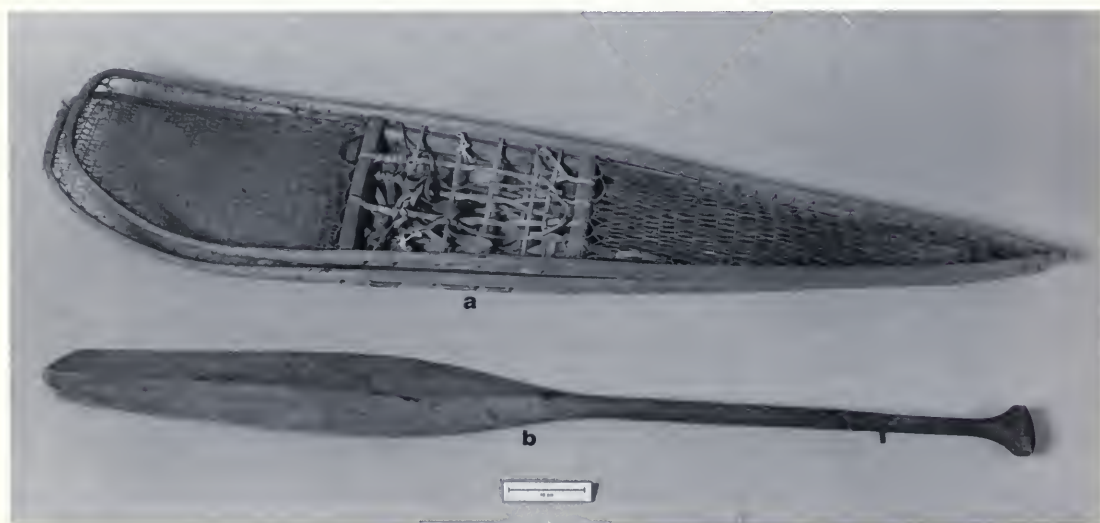


FIG. 44. a, snowshoes (13141–42); b, paddle (14962). (FMNH neg. no. 112758.)





FIG. 45. Model *qasgiq* (14978). (FMNH neg. no. 112756.)



FIG. 46. Model *qasgiq* interior (14978). (FMNH neg. no. 112757.)







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